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THE CURE OF CROSS-EYES.

By VARD H. HULEN, A. M., M. D.,
San Francisco.

Read at the Annual Meeting of the Medical Society of the State of California, April 21-23, 1903.

This subject is very little understood by the laity, and I believe rather imperfectly so by the general practitioner, for whom this paper is prepared, in order that the latter may properly instruct the former concerning the prognosis and treatment of strabismus.

I appeal to the physicians of families wherein are patients, young or old, afflicted with heterotropia, for the dissemination of correct knowledge upon this subject. The family physician has the opportunity and on him devolves the duty of doing the kind of missionary work which will result in greatly diminishing the number of these unsightly cases. The parents of every child afflicted with cross-eyes feel keenly such disfigurement of their offspring, and older patients with squinting eyes realize the disadvantage, from both cosmetic and business standpoints, that this condition is to them; but as so many thus afflicted go through life without pursuing a cure, it must be that the treatment has been found either unpromising or is considered formidable. If the treatment is thought unpromising, it must be that the cases coming within general notice have been not infrequently unsuccessful. If the treatment is considered sufficiently serious to deter one from seeking a cure, there is a mistaken idea of what the treatment of strabismus consists.

The term "cross-eyes" is herein applied to all cases in which the eyes deviate from parallelism, whether convergent or divergent, excluding paralytic cases.

When strabismic eyes are made to remain under all ordinary circumstances in such relative position that no deviation from a normal appearance is detected, they are pronounced cured. But a cure may mean much more than this; it often is the restoration of useful sight to a very defective eye, and in many cases it also is the development of binocular vision.

The ordinary observer will notice only the deviation of the eyes; the patient knows of the deviation, and may be aware of the defective vision; the oculist sees the deviation, detects the defective sight, and, in addition, discovers the absence of binocular vision, and appreciates the necessity for its restoration.

The proper treatment of non-paralytic strabismus is not uncertain in its results, and does not endanger the sight or normal appearance of the eyes. Ultimately we can expect good results, provided both physician and patient perform their relative and entire duty; and I would emphasize that practically all cases of cross-eyes can be cured. The correct time to begin the treatment of heterotropia is just as soon as the condition is discovered, no matter how young or how old the patient may be. After the oculist has made a most thorough examination of the case, it is his duty to explain, in a general way, the course of treatment that may be necessary for a final cure, and it is the duty of the patient to submit himself without let or hindrance to the course as determined upon from time to time by his ophthalmic surgeon. The permanent cure of cases of squint require care, thought, good judgment, skill, and time on part of the oculist.

Some parents request that their cross-eyed children be cured by the use of glasses only, as operations upon the eye were feared; others express a willingness to have the treatment by operation, provided the child does not have to wear glasses afterwards. Contrary to such ideas, we do not have a choice of treatment for the relief of this condition. It is true that not a few of our young patients may be cured completely by the wearing of glasses only; sometimes the eyes are brought into parallelism almost instantly by correcting lenses; then, again, after a simple tenotomy, the deviation may disappear, but in the majority of cases the experience is more strenuous for both patient and doctor.

The treatment of strabismus may be classed as optical, medical, surgical, and hygienic. In a large percentage of squint cases, the refraction of one or both eyes is very imperfect, and must be kept most carefully corrected by lenses. The patient should know that he is required to wear glasses, not because he is cross-eyed, but because his eyes do not focus properly; his hypermetropia or myopia or astigmatism must be absolutely corrected before further treatment is in order. If the patient has no refractive error, there will be no reason for his wearing glasses, no matter how greatly the eyes may cross. Often the sight of one eye, at least, is quite defective, and the vision, both monocular and binocular, must, by various means at our command, be made as nearly perfect as possible, though this may take months of hard work on the part of the patient at his home, in addition to the efforts made in the oculist's office.

The treatment should be mapped out systematically, planned conscientiously, and applied thoroughly, for incomplete and unsuccessful treatment of cross-eyes is an eloquent and lasting reproach to our profession, and deters many from seeking our aid. I know of a prosperous family of five members, four of whom are cross-eyed, but none of them will now submit to treatment, because one was operated upon unsuccessfully. All of you, perhaps, know of many similar experiences. Now another point; we are frequently told that such and such persons were very cross-eyed when children, but eventually outgrew it, that the eyes became straight without any treatment. I have had the opportunity of examining some of these cases, and not unusually the eyes were still crossed, and, possibly, one eye hopelessly amblyopic, or there was good reason for doubting the diagnosis of outgrown squint. It may be possible for recently developed squint to disappear spontaneously, but we should in no case defer treatment in the hope of an unassisted cure. I should like to ask if any member of this society has seen a true case of strabismus disappear spontaneously and permanently. When a case of cross-eyes has received complete non-surgical treatment and remains uncured, then should the operative procedures be commenced.

The surgical treatment of strabismus can only be referred to here briefly and in general terms, as the choice of operative procedures and the technique of ocular muscle operating is of interest to the ophthalmic surgeon only. The patient or responsible person in the case should be instructed in the beginning of the surgical treatment that not one, or any certain number of operations, is to effect a cure; it may take one, two, three, four, or more operations to give permanent good results. Tenotomy as compared with any form of the shortening operation is much simpler for the surgeon and less trying to the patient, but very many of the indifferent and unfortunate results in the treatment of squint have been due to the attempted correction by tenotomies alone. The advancement operation requires careful technique, but the oculist who does it the most skilfully will surely show the best results in the treatment of cross-eyes. It goes without saying that every case of squint has its individual indications for the kind of surgical treatment required, and the operator must proceed accordingly. The general condition of the patient must receive due attention; in some cases this is a very important matter, but it will not do to ignore the eye condition in the expectation that the squint will disappear with the improvement of the general health. It is also necessary to instruct the patient how he may use his eyes while under observation.

A brief synopsis of a few cases of strabismus, as taken from my record book, will be given to illustrate some phases of the treatment required to secure good results.

Case 1. Male, age 4 years. For a month parents had noticed that right eye had turned in; it was sometimes more crossed than at others, they say. Six days after beginning the use of atropine the eyes became straight, and have remained so since. By skiascopy it was found necessary to prescribe glasses to correct his refractive error of compound hypermetropic astigmatism. Owing to the prejudice and influence of his grandparents, the patient has gone a great deal without his glasses, but his eyes were normal in appearance at last report. This case illustrates how the use of atropine to suspend accommodation may alone be sufficient to overcome an early squint.

Case 2. Male, age 18 months. Five months ago it was noticed that first one eye and then the other was crossed, following an illness. After using atropine skiascopy showed hypermetropia, but no astigmatism. He was given + 4 sphericals to wear constantly, which he kept on, with evident satisfaction to himself, and after four months no squint could be detected; however if he left off his glasses the squint returned. It was noted in this case that his mother and aunt and a cousin were also cross-eyed. This case demonstrates that even a baby can and will wear glasses quite as well as any grown person. This child was only eighteen months of age, but would not allow his glasses taken away from him without a protest.

Case 3. Female, age 7 years. Mother had noticed that left eye turned in "always," and that the child used the right eye exclusively. The compound hypermetropia was found to be greater in the left than the right eye; the vision of the right was found perfect, in the left the sight was somewhat defective. Glasses worn for a year had no appreciable effect on the converging left eye. Under chloroform, the tendon of the internal rectus was divided freely, and a control suture used. The correction of the deformity has remained perfect for some years.

Case 4. Male, age 16 years. Had been cross-eyed as long as he could remember. The right eye more often without let or hindrance to the course as determined upon from time to time by his ophthalmic surgeon. The permanent cure of cases of squint require care, thought, good judgment, skill, and time on part of the oculist.

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Case 4. Male, age 16 years. Had been cross-eyed as long as he could remember. The right eye more often converged than the left. Had worn glasses for several years without effect on the squint. He saw double when he looked closely, but the false image was very hazy. It was noticed that the eye turns decidedly up as well as in. Tenotomy of internal rectus and also superior rectus of right eye brought eyes on horizontal, but there remains some convergence under cover. Then tenotomy of internal rectus of left eye, with control suture, brought eyes into perfect position, as shown by the phorometer. Only tenotomies were done in this case, because the hemorrhage was so very profuse always after the first cut of the scissors.

Case 5. Female, age 15 years. Patient says that left eye turned in when she was one year old; when six years of age a tenotomy of internal rectus of left eye was done by a well-known specialist, and from that time, she says, the eye has turned outwards very markedly, and to her great humiliation. The vision of the offending eye was almost nil when I first saw the patient. She says the sight has gradually grown worse from time to time. Tenotomy of external rectus and advancement of internal rectus of left eye gave a perfect cosmetic result, which has remained so for over two years, under the strain of college work.

Case 6. Female, age 38 years. Left eye has diverged many years, she says, but she sought treatment only because of severe pains in eyes, particularly after near use. She was given prisms 3° each base in by an optician; not benefited by them, of course. Vision of right eye perfect, of left slightly below normal. After weeks of persistent efforts with stereoscope and amblyscope, etc., binocular vision was perfectly developed, but relief from her symptoms and parallelism of the eyes were attained only after four operations on the muscles of both eyes. This case illustrates what may be accomplished after patients have reached mature years.

Case 7. Female, age 13 years. When patient was a year old she got a bad fall, since which time her eyes have been frightfully crossed, her mother says; and when she gets excited, the pupil of one eye, usually the right, almost disappeared from the extreme convergence. The vision of both eyes was perfect, and no error of refraction. The rotation of the eyes was normal in all directions, except inward, which was excessive. Tenotomy of both internal recti had but little effect; in addition, advancement and shortening of both external recti did not fully correct the convergence. Later a very free tenotomy of internal rectus of right eye was repeated, using a control suture. The correction was perfect, and has remained so for three years, patient attending school constantly, and wears no glasses. Her eyes are perfectly normal in every way. It is to be noted here that had this patient stopped short of the fifth operation, her cross-eyes would not have been cured.

751 Sutter Street.

THE VALUE OF BLOOD PRESSURE OBSERVATIONS IN SURGERY.

By Wallace I. Terry, M. D.

Read before San Francisco County Medical Society, June, 1903.

For a number of years it has been recognized that the measured blood pressure was of considerable diagnostic value in certain forms of heart and kidney disease, but it is of comparatively recent date that anything like a systematic study of the blood pressure in varying conditions of health and disease has been begun. It is still more recently that the determinations have been applied to surgical work.

The principal difficulty lay in obtaining an instrument which was simple in construction, easy of application, and accurate. Several different forms were used, such as the Mosso, the von Basch, the Gartner, and the Hill, but there were a number of objections to each of these, and they did not become popular. In 1896, however, Riva-Rocci, an Italian, devised a sphygmomanometer, which answers clinical purposes very well, though not suitable for exact physiological laboratory experiments. It consists of an inflatable arm or leg band connected with a mercury manometer and a pump or bulb to force air into the arm band. The band is adjusted to the middle of the arm, and the air is pumped in until the compression of the brachial artery is sufficient to occlude it, as shown by the absence of pulsation in the radial. At the moment when the pulse disappears, the height of the mercury column is read in millimeters, and this is the blood pressure.

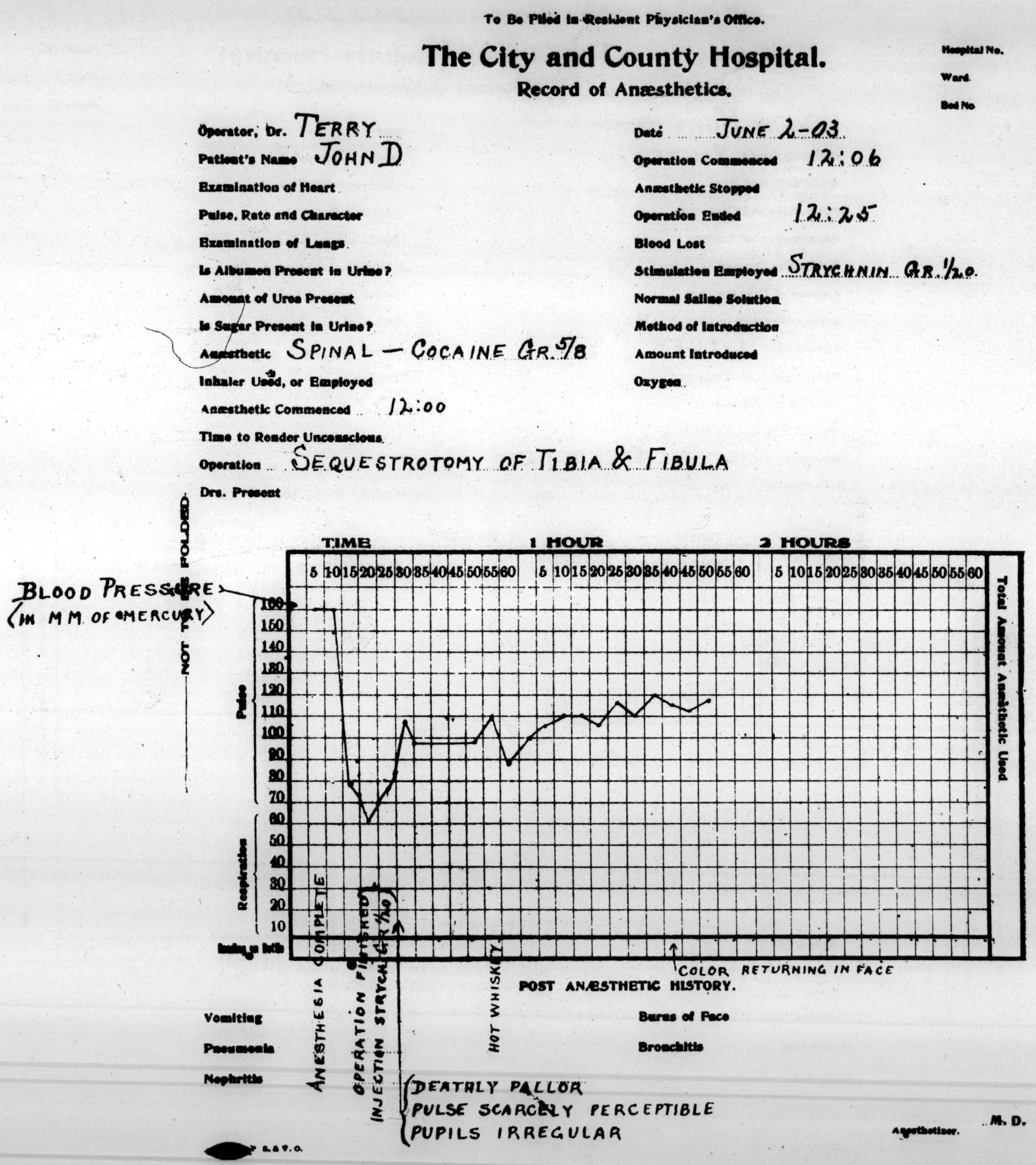
Cook[1] has devised a very convenient portable form of the Riva-Rocci by having the manometer tube jointed and the bulb blown onto the tube, so that there is but one opening in it. The apparatus is very simple, and is here exhibited. Recently Crile has been employing an aneroid barometer in place of the mercury manometer. It is very possible that a still more satisfactory instrument than any now in use will soon be devised. I also wish to exhibit a homemade apparatus which can be readily improvised out of a bottle and tube of small caliber. The arm band can be made out of the inner lining of a bicycle tube, and should preferably be about an inch wider than the one here presented. We very much need a standard size and form of arm band, for the accuracy of the observations depends more upon the band than anything else. But it should not be forgotten that the relative blood pressure is of much greater importance than the absolute; for example, a patient has a pressure of 140 mm. just before an operation, and during the operation it falls to 80 mm.; such a record means more to us than one which shows that four different patients have pressures varying from 120 to 180 mm. It should be recognized that the muscles and other structures overlying the artery offer some resistance to the compressing band, and that the blood pressure thus recorded is higher than the real. It has been found that the actual blood pressure obtained from the larger arteries during amputations was about 100 mm. of mercury, while the average normal pressure, as shown by the Riva-Rocci apparatus, is from 30 to 40 mm. higher. Furthermore, the Riva-Rocci apparatus indicates only the maximum systolic pressure, while the true pressure is the mean between the systolic and diastolic. However, until we get another instrument which is more accurate and equally as convenient, the Riva-Rocci will be used for practical clinical purposes.

To Cushing[2], of Baltimore, probably belongs the credit of introducing the Riva-Rocci apparatus in this country, and especially of making routine observations of blood pressure before, during, and after operations. His lead has been followed in a number of different clinics, and it will be from deductions from thousands of different observations that we will know the ultimate value of the method. It has been found that the blood pressure is quite an accurate index of the degree of shock consequent upon operative procedure, traumatisms, or other causes. Shock is, as we have learned from the studies of Crile[3] and others, an exhaustion of the vaso-motor center in the medulla, with accumulation of the blood in the large veins of the abdomen and an anemia of the vital centers of the brain. The most prominent symptom of shock is a fall in the blood pressure, and we can not obtain the information on this point by means of the palpating finger with anything like the degree of accuracy which the Riva-Rocci apparatus affords us. We are enabled to watch the changes in the degree of shock and the return to normal conditions or the termination by death. The results of stimulants, be they injections of strychnin, whisky, salt solution, or adrenalin, can be measured, and a guide for their administration established for each individual case or group of cases.

Chart 1, which I shall pass around, shows quite typically the rapid fall in blood pressure due to shock consequent upon spinal cocainization and the gradual return to a condition approaching the normal. If we are to adopt the terminology proposed by Crile, then we should call it a case of collapse, and not shock, for by the latter term is meant an exhaustion of the vaso-motor centers. Recently, according to Cook[4], in one of the children's hospitals of the East, a long series of blood-pressure observations were made on children requiring stimulation, and the data thus obtained were found to be of much value. Nurses were taught to use the Riva-Rocci apparatus, and observations were made at the same time that pulse and temperature were recorded. The nurse was instructed to give certain stimulants in case the blood pressure had dropped below a certain level, and to withhold them in case it had not. Briggs[5] has studied along similar lines the effects of some of the cardiac stimulants in adults, and concludes that "in all classes of cases, medical and surgical, a study of the blood pressure is the most accurate guide to the use of the stimulant drugs." From a diagnostic standpoint, the blood-pressure determinations have proven to be of considerable value in intra-cranial conditions, especially those accompanied by increased intra-cranial tension.

It has been shown by Cushing[6], in his studies on the lower animals, that a rapid increase in intra-cranial tension is accompanied by such an increase in the blood pressure as will overcome the anemia of the brain, and that the blood pressure continues to rise pari passu with the intra-cranial tension until a maximum point is reached, when the vaso-motor center refuses to act. In some cases a pressure of over 300 mm. has been recorded. Cushing[10], Dennis[7], and others have found clinically that a similar state of affairs prevails in the human being. Thus in depressed fractures of the skull, hemorrhages within the cranial cavity, cerebral tumors or collections of fluids, we have a rise in the blood pressure, which in many cases is apparent to the touch, but in others the changes are so gradual as to be overlooked. The graphic plotting of the blood pressure in such cases, along with the temperature and pulse, will undoubtedly be of value in diagnosis and prognosis. In the administration of anesthetics we gain considerable information in regard to the condition of the patient by a study of the blood-pressure changes. In general, we know that chloroform causes a depression and ether an elevation of the arterial tension, but there yet remains much data to be accumulated before we shall be able to formulate definite laws regarding the influence of anesthetics on arterial tension. In addition to the changes due to the anesthetic, we must also make allowances for those induced by the operation per se, and the record kept by the observer should show the time of each important step in the operation. Chart 2, which is being passed about, exhibits quite typically the changes in blood pressure during a major operation, a gastro-enterostomy. Partial evisceration of the intestines and tension on the stomach produced a decided drop in the blood pressure. It slowly returned to the normal during the suture of the stomach and intestine, but

CHART I SHOCK PRODUCED BY SPINAL COCAINIZATION.



To Be Filed in Resident Physician's Office.

The City and County Hospital.

Record of Anæsthetics.

Hospital No.
Ward
Bed No

Operator, Dr. TERRY
Patient's Name JOHN D
Examination of Heart
Pulse, Rate and Character
Examination of Lungs
Is Albumen Present in Urine?
Amount of Urea Present
Is Sugar Present in Urine?
Anæsthetic SPINAL — COCAINE GR. 5/8
Inhaler Used, or Employed
Anæsthetic Commenced 12:00
Time to Render Unconscious
Operation SEQUESTROTOMY OF TIBIA & FIBULA
Drs. Present

Date JUNE 2-03
Operation Commenced 12:06
Anæsthetic Stopped
Operation Ended 12:25
Blood Lost
Stimulation Employed STRYCHNIN GR. 1/20.
Normal Saline Solution
Method of Introduction
Amount Introduced
Oxygen

POST ANÆSTHETIC HISTORY.

Vomiting
Pneumonia
Nephritis
Burns of Face
Bronchitis

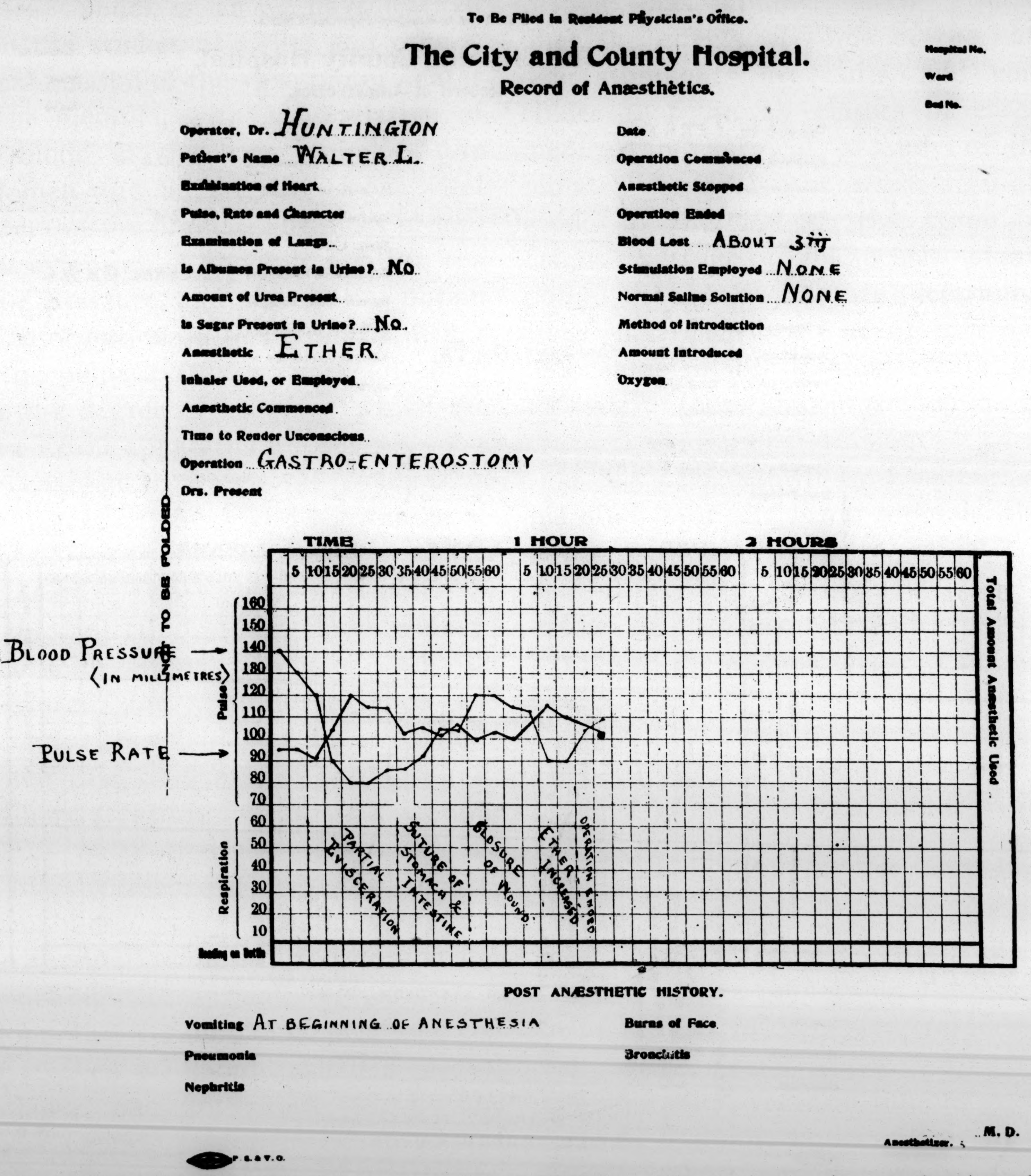
DEATHLY PALLOR
PULSE SCARCELY PERCEPTIBLE
PUPILS IRREGULAR

Anæsthetizer. M. D.

quickly dropped again in the weakened condition of the patient when a considerable and unnecessarily large amount of ether was administered to allow of the completion of the operation.

healthy individuals fell immediately after venesection in proportion to the amount of blood removed, but returned to normal within a short time, usually about an hour. In tapping effusions of the pleural or abdominal cavities, there is to be noticed a fall in the blood pressure, and I doubt not that in many cases the sphygmomanometer will be a guide to the amount of fluid to be withdrawn and the rapidity with which it should be allowed to escape. I have here a chart (No.

CHART 2 SHOCK PRODUCED BY PARTIAL EVISCERATION OF SMALL INTESTINE.



To Be Filed in Resident Physician's Office.

The City and County Hospital.
Record of Anæsthetics.

Hospital No.
Ward
Bed No.

Operator, Dr. HUNTINGTON
Patient's Name WALTER L.
Examination of Heart
Pulse, Rate and Character
Examination of Lungs
Is Albumen Present in Urine? NO
Amount of Urea Present
Is Sugar Present in Urine? NO
Anæsthetic ETHER
Inhaler Used, or Employed
Anæsthetic Commenced
Time to Render Unconscious
Operation GASTRO-ENTEROSTOMY
Drs. Present

Date
Operation Commenced
Anæsthetic Stopped
Operation Ended
Blood Lost ABOUT ℥iij
Stimulation Employed NONE
Normal Saline Solution NONE
Method of Introduction
Amount Introduced
Oxygen

POST ANÆSTHETIC HISTORY.

Vomiting AT BEGINNING OF ANESTHESIA
Pneumonia
Nephritis

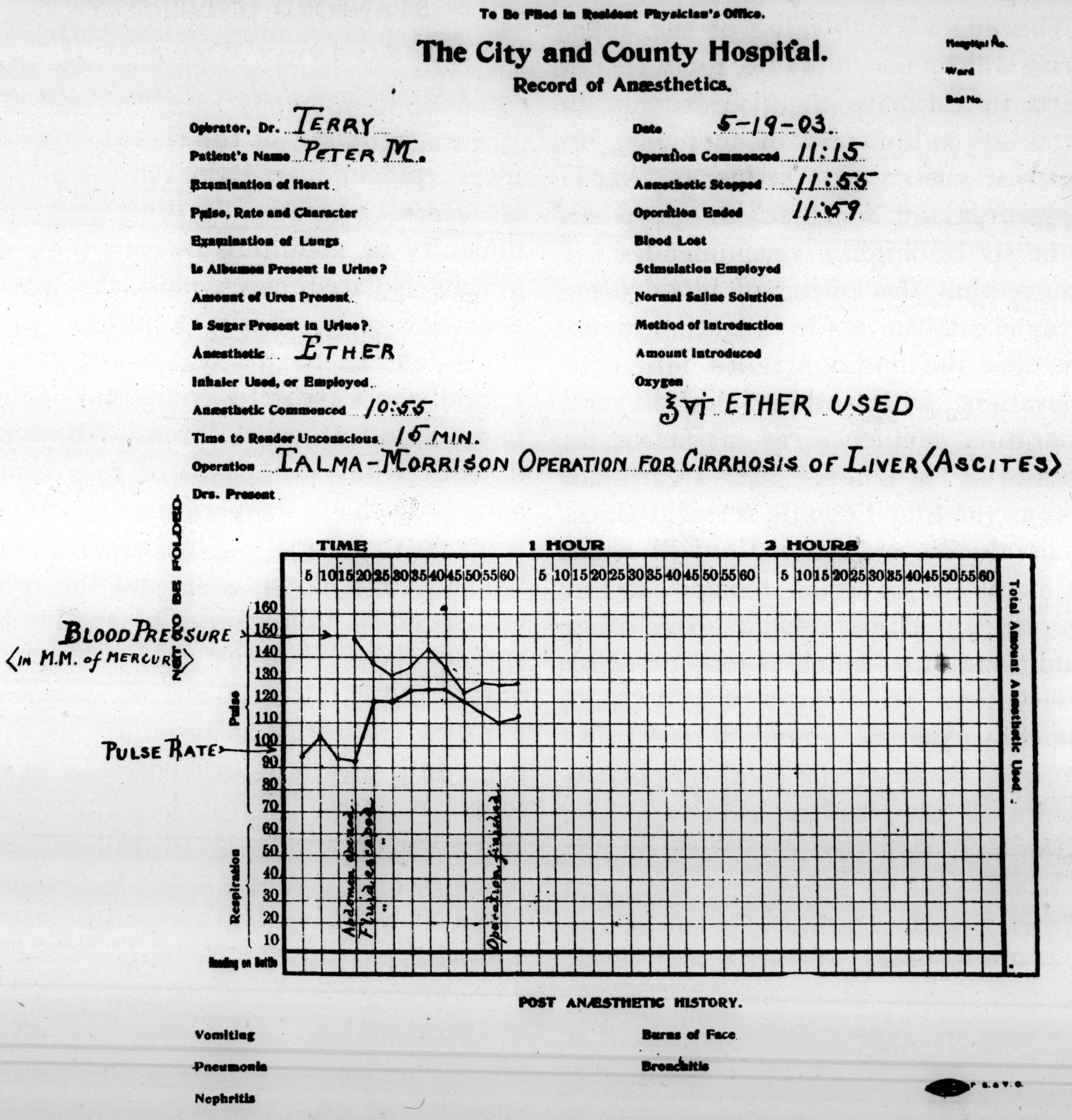
Burns of Face
Bronchitis

Anæsthetizer. M. D.

The effect of hemorrhage is to cause a lessened arterial tension, but unless continued or very large in amount, the blood-pressure regulatory mechanism soon overcomes the fall, and it returns to normal, or nearly so. Butterman[8] found that the blood pressure in

3) showing the effect on the arterial tension of emptying the abdominal cavity of a large amount of fluid—estimated at ten to twelve pints—during a Talma-Morrison operation for the relief of ascites from cirrhosis of the liver. In this case the fluid was allowed to escape rather slowly, and the blood-pressure record shows but a slight fall. I have also other records of arterial tension during paracentesis of the abdomen by a small needle, which shows no drop. In aneurisms this apparatus shows the variations in the tension of the arteries of the extremities, and will probably be of more value in watching the effects of the treatment adopted. Typhoid perforations are, as is well known, difficult of diagnosis in an early stage, and any means which will aid us in the recognition of the condition should surely be welcomed. It has been found by a number of observers that the blood pressure during uncomplicated typhoid fever is abnormally low. When perforation occurs, the blood pressure rises rapidly. The blood-pressure observations of Crile[9] on five cases of typhoid perforation are interesting and

CHART 3. Effect of slow evacuation of abdominal fluid.



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Hospital No.
Ward
Bed No.

Operator, Dr. TERRY
Patient's Name PETER M.
Examination of Heart
Pulse, Rate and Character
Examination of Lungs
Is Albumen Present in Urine?
Amount of Urea Present
Is Sugar Present in Urine?
Anæsthetic ETHER
Inhaler Used, or Employed
Anæsthetic Commenced 10:55
Time to Render Unconscious 15 MIN.
Operation TALMA-MORRISON OPERATION FOR CIRRHOSIS OF LIVER ⟨ASCITES⟩
Drs. Present

Date 5-19-03.
Operation Commenced 11:15
Anæsthetic Stopped 11:55
Operation Ended 11:59
Blood Lost
Stimulation Employed
Normal Saline Solution
Method of Introduction
Amount Introduced
Oxygen
℥vi ETHER USED

POST ANÆSTHETIC HISTORY.

Vomiting
Pneumonia
Nephritis

Burns of Face
Bronchitis

valuable, and illustrate the prompt effect on the vaso-motor system. I am strongly of the opinion that a sudden rise in the blood pressure of a patient suffering from typhoid fever should, when accompanied by other clinical symptoms, be given as much weight in the diagnosis as a rise in the number of leucocytes.

The educational value of the apparatus will be considerable, for we shall learn to estimate a pulse tension in terms of millimeters of mercury, instead of such vague terms as "hard" or "soft," and for teaching purposes it is to be highly recommended. I believe that the taking of blood pressures should be made a routine measure, and the findings taken into consideration with other clinical and laboratory evidence as a factor in diagnosis, prognosis, or treatment. Just as the blood counts serve at times as invaluable aids, so also will exact estimates of arterial tension be of assistance. There are numerous other conditions in which blood-pressure observations are of interest and value, but this paper is intended merely as a brief resume of the more important results of the studies already made, in the hope that the physicians of this state will take up this line of work and help in the elucidation of some of the problems appertaining to it.

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751 Sutter Street.

TYPHOID FEVER AT PALO ALTO AND STANFORD UNIVERSITY.

By Ray Lyman Wilbur, M. D.

Read before California Academy of Medicine, May, 1903.

The beginning of the recent typhoid fever epidemic at Palo Alto, Cal., is of interest, because it illustrates the difficulty of definitely tracing the origin of isolated cases, and the great necessity of promptly doing so.

On Jan. 22, 1903, I was called to see a family in Palo Alto, composed of the parents and seven children. All were ill with what seemed to be la grippe, and they had temperatures ranging from 99.4° to 103°. One of the family had come down first, and the others speedily followed. On the 29th, a week later, I went again, because one of the children, a girl of fourteen, had not recovered as promptly as the rest, and was still in bed. She was found to have a bronchopneumonia, and soon became very ill, but not so much so as a younger sister who came down very suddenly three days later, and who had much more lung involved. The first case soon improved; the temperature, which had reached 104°, fell rapidly, and on February 10, seventeen days later, she was sitting up in bed. But on the 17th her temperature gradually rose again; she had pain over the splenic region, ileocecal gurgling, some diarrhea, but no rose spots. There soon developed a large splenic dulness, and such marked asthenia that the patient was moved to Lane Hospital, where her blood soon gave a positive Widal reaction, and a diagnosis of typhoid fever was made by Dr. W. F. Cheney. Whether the case had been typhoid from the first, with a relapse, or whether during convalescence from the pneumonia following the grippe there had been a prompt infection from ingested typhoid bacilli, is not clear, although I am inclined to the latter belief. The younger sister with the pneumonia finally recovered, without any rose spots or abdominal symptoms. It is possible that the early infection of the whole family was typhoidic in character, rather than la grippe. I saw cases later in the epidemic with only the symptoms of a "bad cold" early in their illness, or even constituting their whole illness, where there was a definite history of taking infected food. On March 1 three more cases of illness appeared in this family. One of them was the nurse of the first girl to be taken sick. These were typhoid fever from the beginning. All of them had coated tongue, anorexia, loss of strength, mental dulness, gradually rising temperature, rose spots, or, as in one case, a diffuse erythematous rash over the abdomen lasting but one day, enlarged spleen, headache, nose bleed, and constipation. Their symptoms soon became severe, and their illnesses extended over a period of nearly ten weeks, with collapses, endocarditis, venous thrombosis, and post-typhoid mania, appearing as complications in the several cases. The rest of the family were sent away, and a thorough search made for the cause. The sewerage system of the house was not good, and the general sanitary management of the family and the family kitchen poor, but no direct cause could be ascertained. The water supply was that of the town, and there were no other cases in town, and there had been none for several years. Examination of the town water proved it to be unusually free from microorganisms of any sort. The water is pumped from very deep wells, and stands only in elevated tanks, so that it is practically impossible to contaminate it. A similar, but different, supply is used by the residents of the university campus. The town and campus sewerage system are both excellent ones, with good fall and ample flushing. Shortly after the appearance of these cases, a woman, who had come in to help the family and had cleaned up the pantry and kitchen, came down with typhoid. Incidentally, her home milk supply was the same as that of the infected family. A second outside case was next reported by Dr. Howard Black. His patient was a great milk drinker, and was on the same milk route. The case against the milk was growing when the next patient down gave an absolute history of never having had the milk in the house, and of not having used it elsewhere. This blocked immediate definite action against the milk, but a general warning against unboiled milk, raw vegetables, etc., was given. Samples of the milk, water supply at the various dairies, etc., were submitted to bacteriologists by Dr. F. H. Moss, of Palo Alto, but their reports were slow in coming. Cases soon began to appear rapidly, and as they came along this one milk route, it was promptly shut off early in April. That this was the source is clearly shown by the fact that no new cases appeared after May 1. This action was taken more upon clinical experience and history of the cases than upon the early bacteriological findings, and illustrates the fact that where typhoid exists all possible sources of infection should immediately be considered guilty, until they have been proven innocent. It is of interest to note that the patient that seemed to prove that the milk could not be the source has, since recovery, remembered eating at a restaurant where the infected milk was used, and of drinking milk from a wagon of the infected dairy, while on its rounds. Other dairies were investigated, and in the water supply of one of them near Mayfield typhoid bacilli were found. There was a history of a death from fever upon this place two months before. The milk from this dairy was not delivered to any great extent in Palo Alto. The inability of many of our dairymen to grasp the elements of decency, let alone cleanliness, was well illustrated here. A well at the lowest corner of a cow corral, a full privy vault near by, and all upon low ground, well flooded in wet weather, sums up the conditions.

The milk route upon which the typhoid cases appeared derived its supply from two sources, one of them a dairy in San Mateo County, near the county line. Here the conditions were most favorable for typhoid infection. A small stream, with one or two small houses near by, led down by a cattle corral, and had a small building upon it where milk was cooled and cans washed. It has recently come out that a Portuguese child in one of these houses had a continuous fever without crisis for several weeks, with pneumonia as a diagnosis. At three places near Palo Alto there had been cases of fever and death among Portuguese families. all of them acquainted with the man in charge of the dairy, and at least one of these places a diagnosis of typhoid fever had been made. It is to be noted that there had been some heavy rains shortly previous to the advent of the majority of cases. Looking back over the cases of typhoid, it is easy to map out the particular milk route accurately, and it is hard to see how a clearer milk epidemic could occur. In all, there were about 175 cases, and at least 14 deaths can be traced to the epidemic. These cases were distributed all over the Pacific Coast, and one case came down in New York City. Thirty-five of them were residents of the university campus. The distribution of the typhoid upon the campus will illustrate clearly the ease with which the milk was pronounced the source of infection. There are about 1,000 residents on the university campus, all using the same water supply. The milk from the infected dairy was delivered at two fraternity houses and at one professor's home. Twelve cases can be traced to one of the fraternity houses, five to another, two to the home. One girl at Roble Hall, the girls' dormitory, came down there with typhoid, but had taken meals previously at a girls' club in Palo Alto, where half a dozen cases appeared. The men in Encina Hall that were affected all gave a history of eating at restaurants in Palo Alto where the milk was served, with one exception, a Japanese, who waited upon table in one of the fraternity houses that took the milk. Two cases occurred in a fraternity house not taking the milk. The first one who came down gave a history of taking a meal at a restaurant in Palo Alto, and the second one came down about two weeks after helping nurse the first and giving him a cold bath. To my knowledge, with the possible exception of a nurse, it was the only case of secondary infection in the epidemic A couple of illustrations of the way in which the milk was held accountable may not be amiss. One of the children sent away from the house first infected came back some weeks later with typhoid, because the infected milk was taken at her new home. Two women, in the same house, who had typhoid symptoms, after insisting for several days that they had never taken any of the infected milk at any time, accidentally found out that a neighbor had sent in, two weeks before, some uncooked, infected milk on a dessert. Of the four in the family, only these two partook of the dessert, and they were the only ones to come down. In the 83 cases that came directly under my observation at some time in the course of the disease, a history of taking the infected milk was obtained in all.

General Character of the cases.—There has been a general opinion that the cases of typhoid at Palo Alto were of a mild type and similar to the typhoid usually experienced upon the western coast, but, in my opinion, it was a malignant form of the disease. Careful and prompt management prevented many cases from becoming severe that would otherwise have been so. This was clearly proven by the fact that cases starting alike in every way differed widely in their later course, according to the food and general care received by the patient. Opportunities were presented of getting patients to bed before any febrile reaction had begun, and usually with very favorable results. Complications were common. I can not speak positively for the entire number of cases, but in the 83 which I saw personally the number of complications is of some interest. Fifty-eight of these 83 cases I followed throughout the course of their illness. There were nine cases of severe intestinal hemorrhage; at least four cases of perforation; eight of either abscess of arm, submaxillary gland, or ear; five of pneumonia; eighteen with marked nervous symptoms subsultus tendinum, muscular spasm, maniacal delirium, coma vigil, etc.; eighteen collapses; five endocarditis; three with periostitis of the tibia; and one with a false membrane of the throat. Of these 83 cases, five died, two of intestinal hemorrhage, two of perforation, and one of endocarditis, pericarditis, fatty degeneration of cardiac muscle, embolism of kidney, marked degeneration of liver, and, possibly, embolism of some of the cerebral vessels. A few cases lasted only five weeks; most of them ran six weeks, and some twelve weeks.

Diagnosis.—Some unusual opportunities for observing the development of typhoid were presented by the conditions of the epidemic. For instance, where a case has appeared in a family or a fraternity, and you are sure that the others have been subjected to the infection, you can follow the onset of the disease from the first. The earliest sign noted in many cases was a peculiar ashen, gray-coated tongue. I was surprised to find that cases could be sent to bed before even the preliminary headache by this sign. In several instances where this was done, the course of the disease was very mild in character; but in two of them, after four weeks in bed, with practically no temperature, they suddenly became quite sick, ran a moderate temperature, and gradually got well, showing that the infection had been working steadily, although held in subjection.

In the earlier cases the Widal and diazzo reactions were obtained, but I regret to state that as the cases increased in number, it was impossible to keep up these tests. They were not found necessary for diagnosis. With so many cases, typical and otherwise, under observation, it was of considerable interest to note that at the height of the epidemic two severe cases of malaria developed, simulating typhoid, and that they were immediately recognized, and promptly cured with quinin. I am of the opinion, from seeing so many people that had been infected with typhoid and after watching the manifold courses of these cases, that a great many cases of typhoid go unrecognized, and that many of our minor but persistent intestinal ailments are frequently typhoidic in character, particularly in people over 30 years of age. I also feel convinced that when once established that typhoid fever is present in a community it is imperative to consider all cases of fever typhoid until it is clearly pronounced that they are not. A negative Widal test for any one stage of the course of fever is far from positive evidence that the case is not typhoid. I would also particularly urge that stool disinfection, etc., be regularly practiced in fever cases, whether or not the Widal reaction has been obtained. I think it most advisable for all physicians meeting typhoid when it is epidemic to put to bed every case that comes under observation with persistent subnormal or elevated temperature, and keep upon milk diet until at least a week has passed. Repeatedly I have seen cases that had gone to bed, and after taking a laxative would find their fever gone, only to return again in a few days with renewed strength after careless eating or exercise. The diagnosis was usually made upon ashen, gray-coated tongues, headache, anorezia, a general feeling of being ill, colicky pain in the abdomen, ileocecal gurgling, nose bleed, sordes, enlarged spleen, and usually temperature and dicrotic pulse. The ileocecal gurgling was peculiarly alike in the typhoid cases, and could be distinguished from the ordinary gurgling after taking a laxative. In the 83 cases observed, only two had diarrhea; the rest had, practically throughout their illness, obstinate constipation. The development of rose spots was of considerable interest. In the majority of cases seen, the spots were from eight to fifteen in number, and over the chest and abdomen; but in some cases, particularly the children, they were more plentiful, and scattered freely over the trunk and limbs. In eight cases a peculiar erythematous rash over the chest and abdomen, usually transient in character, occurred. This seemed to be largely circulatory in character, and soon after disappearance could be brought out again by brisk rubbing of the skin. In the majority of cases there was some marked tenderness in right ileocecal region. It was interesting to note also that in four cases a mitral murmur with weak pulse was observed upon the first visit, but that it cleared up later. Such cases were very subject to collapse later on in the disease. The advent of many cases was similar to the beginning of an acute bronchitis. The constant coughing lead to a faulty diagnosis in some cases, as it directed attention to the chest rather than the abdomen.

In regard to the course of the fever: As a rule, there was a gradual rise of temperature, but in two cases there was a sudden onset, simulating in one case an attack of acute appendicitis. The other case was under observation for three days previous to the beginning of the fever. There was some headache, a coated tongue, and the patient looked badly, but he refused to go to bed, and continued to do hard physical and mental work. Upon the fourth day he had a chill and temperature of 103.° He had a large internal hemorrhage in eight days, a perforation four days later, and died of a second perforation four days after the first. There were a considerable number of subnormal cases, particularly among adults. These usually complained of feeling sick and miserable; had very marked constipation, considerable general weakness, and much headache. The low temperature was usually persistent for several weeks, and the spleen remained enlarged during that time. A number of ambulatory cases were seen late in the course of the disease, two of them presenting themselves for severe hemorrhoids. They gave a history of indigestion, headache, nose bleed, and usually of feeling badly all over. Upon examination they were found to have coated tongue, enlarged spleen, marked subnormal temperature, and in one case rose spots. They were put to bed and carefully fed and watched, and the temperature ran a subnormal course for several days. There were many examples of recrudescences and of some relapses in the epidemic. The urine in about 50 per cent of the cases contained albumen at some time during the course of the disease. It was very characteristic to have a marked falling off in the amount of urine after the temperature had become subnormal; this went as low as 15 and 18 ounces in 24 hours, and this in cases where the urine contained no albumen. I found out an interesting theory in the therapeutics of this condition. The ordinary unfermented grape juice had a better effect than any other thing that was used. A point in regard to the circulation was promptly found out. The first sound of the heart was a much more reliable guide than the pulse as to the condition of the patient. Frequently I saw collapses follow soon after a full, strong, even pulse, but the stethoscope usually gave warning.

The general plan of management of these cases is an important part. There were many difficulties to meet in a community without a hospital and with an epidemic to face. Insistence was made that a trained nurse be employed in every case, and in many three or four were used. Each case had to have an emergency outfit for hemorrhage, perforation, and collapses, and written instructions were given the nurses as to signs and symptoms of these conditions and their treatment. Emergency hospitals were promptly organized, under the direction of Dr. W. F. Snow. The nurses in these places were put under the control of a head nurse, who had the general management of drugs, supplies, etc.

In closing this part of my paper, I would like to call attention to a few points of interest. Japanese were particularly susceptible to the disease; of the four infected, three died, although their temperature did not range high. The effect of early, careless feeding was a source of trouble later on. The most serious cases, and several of the cases that succumbed, were among the senior students. They were reluctant to drop their work, and were fatigued by continuous study. Student communities, for many reasons, are unusually poorly fed, and this factor was important in the epidemic. The effect of physical exhaustion was marked. Three of the cases that died persisted in some form of physical exercise, in spite of beginning fever. An early symptom was frequently exhaustion. One student came to me complaining only of the fact that he found himself unable to think in an examination. He soon developed a severe case. The widest range of temperature noted in an individual case was from 95° to 106.4.° The highest temperature with recovery was an axillary temperature of 107.° The most characteristic thing about the epidemic was the large number of collapses that occurred. These were alarming, and were frequently repeated in some cases. They came on suddenly the temperature falling sometimes from 105 to subnormal. The patient became pulseless, frequently unconscious, and sometimes cyanotic. The study of some of the individual cases and of the general treatment will be taken up in a later paper.

SUPPRESSION OF THE URINE RELIEVED BY DECAPSULATION.

By George L. Eaton, M. D.

A case of suppression of urine for eight days, reported by H. J. Whitacre, was relieved by decapsulation of the kidneys. The case as reported by the doctor is as follows: Mrs. L., age 49, married, had borne five children and had two miscarriages. About the middle of February, 1903, being about six weeks pregnant, she took a dose of ergot, then inserted a catheter into the uterus. Considerable bleeding followed for several days, whereupon the uterus and vagina were irrigated. The following day she complained of some pain upon urination, and at noon passed eight ounces of thick, highly-colored urine. The next day, February 27, she was catheterized, but no urine found. Bladder was irrigated; infusion of digitalis, large amount of water, and fluid diet were prescribed. February 28, no urine obtained by catheter; acetate of potash and saline purgatives added to the medication. An intravenous injection of sixty ounces of normal salt solution was given. On March 1, at 3 P. M., she passed one-half ounce of urine; at 3:30 P. M., infusion of digitalis and Epsom salts, there being twenty-four watery stools. At 10 A. M., sixty ounces of normal salt solution was repeated, and at 8 P. M. she received two hot-air baths, the total amount of urine passed in twenty-four hours being about five drams, containing a heavy percentage of albumen, no casts, white blood, and round epithelial cells, and a few red blood cells, urea percentage one and one-fourth. March 2. Patient felt well, temperature, etc., normal. The uterus was emptied of a large amount of decomposing placental tissue, without the use of an anesthetic; the bladder was examined with the cystoscope; normal in appearance and empty. Total amount of urine by many catheterizations was thirty drops. March 3. Temperature below normal (97), pulse, 74; respiration, 20. Ten drops of urine for twenty-four hours. Stools contained .6 per cent urea. March 4. Patient felt well, no ocular symptoms, no pain, ten drops of urine for twenty-four hours. Stools had .7 per cent urea. Bladder again examined; normal; no urine issued from ureters during the half hour that the patient was being examined. March 5. Condition shows failure in strength; citrate of magnesia administered; strontium bromid in ten-grain doses every four hours. Urine obtained by catheter, twice one dram and then one-half dram. Reaction acid. Albumen, urea 1.4 per cent, no sugar. White blood cells, bladder, epithelial, and round kidney cells. March 6. (Eight days of suppression.) Under chloroform anesthesia the right kidney was exposed through incision in loin. Kidney one-half larger than normal, with a purplish appearance. A hollow needle was passed into the pelvis; no stone was found, nor any urine. Capsule was removed, and after the entire capsule had been excised, the kidney was dropped back and gauze drainage inserted and external wound closed. The same procedure was applied to the left kidney, which presented the same appearance. One hour after the operation, patient expressed the desire to urinate. Two ounces of bloody urine collected by catheter, same being neutral in reaction; albumen abundant, centrifugated specimen; red blood cells and round cells in advanced stage of fatty degeneration. Six hours after operation, two and one-fourth ounces similar urine was voided; at 9 P. M., one and three-fourths ounces; at 1:30 P. M., two ounces; at 5:30 A. M., four and one-fourth ounces; at 8:30 A. M., three ounces; at 11:40 A. M., four ounces, giving a total of twenty-one ounces in the first twenty-four hours after the operation. Urine continued bloody; reaction became acid at 1:30 A. M.; sp. gr. 1009; percentage of urea had diminished to one per cent in the morning urine. Fatty cells present to the end of the twenty-four hours. The second twenty-four hours after operation urine was passed in from three to ten-ounce quantities, and aggregated forty-eight ounces; on the whole, the general appearance of the urine showed improvement, urea .85 to 1.5 per cent. Patient left the hospital on the seventeenth day, and from the reports, the total amount of urine has averaged from four to four and one-half pints per day since March 25. The foregoing goes to prove that decapsulation or incising the capsule in suppression of urine is a valuable surgical procedure.

HOMO DELINQUENS.

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Translated by A. W. Hoisholt, M. D.

It is characteristic of modern radicalism that it exacts a critical revision of all transmitted views, "a new valuation of all values" (Nietzsche). Thus has there likewise been a complete revolution in the opinion of crime as a social phenomenon. And it may, perhaps, in a considerable measure, be placed to the credit of medical science that it has taught the somewhat mouldy jurisprudence the necessity of a rational foundation based upon natural sciences for examination on this subject. Above all, the result has been an entirely new mode of looking at things, one which is no longer satisfied with regarding crime as a breaking out of sin, as a guilt to be atoned for, but which makes crime appear as one of the many vital manifestations of the social organism.

This view has led to the recognition of punishment as but one of the means of combating criminality, and although for the present certainly an indispensable one, it is not, perhaps, the most important. Sociology has adopted from medical science the golden words, "An ounce of prevention is better than a pound of cure." It behooves one to hunt up the evil at its root, so as to find the right means of warding it off. In this, then, lies the chief problem of modern criminology. It is the causes of crime which one must strive to ascertain; and the prophylaxis of crime turns itself, as a matter of first importance, toward the social evils, while punishment, especially if looked upon with the eyes of the past as a revenge, a retribution, of necessity becomes of secondary importance. Looked at from this point of view, the study of crime presents numerous and difficult problems, and therefore requires a united colabor especially of jurists and physicians, which naturally leads to the consideration of a subdivision of the work. It would seem more particularly the office of lawyers to take up the social causes of crime, the influence of the surrounding medium ("milien"); while it would fall to the lot of physicians to deepen the anthropological etiology of crime, i. e., to look for a more certain recognition of those preliminaries of crime which have their origin in certain peculiarities of the human organism. This subdivision of work coincides with the distinction between outer and inner causes (so-called exogenous and endogenous); and the difference between the problem of jurists and physicians may also briefly be stated as being that the former deals mostly with the crime, the latter with the criminal.

What is it then, which, viewed more closely, constitutes the object of medico-scientific investigations? Here we at once encounter the difficulty that the term criminal is, to a certain degree, conventional. It is well known that what has been regarded as even a meritorious act by a certain nation or at a certain period of civilization has under other circumstances been stamped as a crime. It is apparent, however, that it can not be the duty of physicians to draw the line at what must be considered an unpermissible interference with the existing order of the community. For this reason the so-called political criminals, for instance, are not, as a rule, the object of our consideration of crime and the term criminal. The same may be said of the criminals of passion, who at a certain occurrence have allowed themselves to be overcome by an in itself natural emotion, and where the particular violation of law appears to stand as an altogether isolated fact in the person's life. It likewise concerns such criminals of chance, who occasionally give way to a particularly strong temptation to make use of unlawful means. It is apparently not these kinds of law-breakers in whom we can be expected to find and determine the anthropological characteristics. On the other hand, the object of the medico-scientific investigations become clearly indicated when we turn our attention to the criminals of habit, the habitual, professional criminals, where the violation of law has become a repeated and important means, and finally a matter of course in the person's fight for existence. Here we in reality have to deal with a particular criminal class; and it is true of this that it deviates from the normal from an anthropological standpoint. It is with reference to these individuals that the modern medical science maintains that they differ considerably from the mental average, that they must be judged by, and dealt with, in accordance with altogether different rules than normally constituted individuals, and that they can only be understood when looked upon as a degeneration of the human type, a deviation in the direction of the inferior, in the direction of a defect.

These abnormal beings constitute a caste of their own, which is constantly at war with society. They make up the dregs of the large cities and form the irregular, vagabond element of the country population. They are the parasites of society, born egotists and separatists, always beyond sympathetic fellowship with the rest of mankind, with the lawfully working and suffering humanity. It is this class of individuals which the modern positivistic criminology has in mind when it formulates the theory of crime as a degeneration phenomenon, and criminals as suffering from a congenital, diseased constitutional anomaly, yes, as even representing an atavistic relapse. This teaching has its starting-point in the system of Morel; the germ of it can be demonstrated in the classical and chief work of this writer, "Concerning the Degeneration of Mankind." Afterwards the theory was further developed by English and French writers, and in more modern times it has again been taken up, with relative originality by the Italian, Lombroso.

The original part of Lombroso's standpoint was, in reality, only the more pronounced emphasis placed upon the congenital character of the abnormality (Delinquente nato, the born criminal). It is true that one had already before this observed that the peculiarities which give to "Homer delinquens," the criminal man, his special position socially, are inherited. One had already used the sensational words, "Of the real thief the same is true as of the real poet, that he is born." To Lombroso and the Italian school the credit is due of having further traced all the bodily and mental stigmata, characteristics indicating the inherited disposition. One of the chief points in Lombroso's teaching was that the members of criminal families carry in plain view certain pathological signs, and that this "criminal seed" from birth on contains the germ of the future abnormality, so that the development must of necessity become crooked, yes, diseased.

Lombroso and his pupils, however, fell to making a too severe determinism, and there are probably not many who now defend his doctrines to the full extent of their one-sidedness. One may, perhaps, say that the "born" criminal is already dead and out of the world again, in so far as it is recognized by all that he is not predestined to crime, but may be rather predisposed by a primarily faulty organization. The mistake of Lombroso was, perhaps in reality, but a misinterpretation of what it is that may be inherited. What the professional criminal carries with him into the world is an undeveloped disposition. The crime is but an eventuality; but a soil so favorable is, to be sure, prepared for it that even the happiest outer environments but too often will be found insufficient to combat the criminal tendency. There is reason for maintaining this as against those who wish to place the chief importance upon the social factors, the surrounding "milien" (medium), as the determining ones for the development of the criminality. According to the understanding of this school, it is in the first place the poor hygienic conditions, the bad example, the ruins caused by drink and excesses, which create a disposition to crime, in so far as it is especially also the progeny of such individuals, who easily and early succumb to vice. It is quite correct, that, from this point of view, the importance of outer influences has been brought forward; but there might, though, be reason for warning against an undervaluation of the internal, primarily given suppositions. However this may be, even if it is to be admitted that a correction of Lombroso's teachings has been necessary (just as he has, upon the whole, shown himself to be a scientist more rich in imagination than sober), still that he has been of service to criminal anthropology is indisputable, and it is quite unreasonable that to mention his name is in certain conservative law circles like flaunting a red flag before a bull. However one may explain the connection, a criminal heredity shows itself in the formation of pronounced "criminal families," that at times people certain criminal quarters in the large cities. In the prisons this family relationship may often be shown; thus, on one occasion there was at the old penitentiary at Viborg (Denmark), at the same time, great grandmother, grandmother, mother, and daughter.

But aside from this direct, homogeneous heredity, one finds upon examination of criminal families that crime alternates with mental and nervous diseases. If one looks over their genealogy, it will be seen that some of the members of the family are imprisoned in the penitentiary, while others inhabit the insane asylums; others, again, may, perhaps, be addicted to liquor or suffering from epilepsy. Crime thus enters into the series of abnormal conditions, which by transformation may occupy one another's place upon the common degenerative basis.

(To be continued.)

DEPARTMENTS

EYE, EAR, NOSE, AND THROAT.

By Wm. Ellery Briggs, Sacramento, and
A. B. McKee, San Francisco.

The Mechanism of the Growth of Cholesteatoma.—A. Ephraim relates that in a case of cholesteatoma of the mastoid, in which a large opening had been made, in spite of careful treatment, and even after complete epidermization of the cavity, new cholesteatoma continually formed. After removal of the latter, a red surface was visible. A remarkable circumstance was the gradual enlargement of the cavity. Since pressure influence can be excluded in this case, the author concludes that cholesteatoma wears away the surrounding bony wall, not by pressure, but direct action (Archiv. fuer Augenheilkunde). The same process was observed by the abstracter of this article in a case operated three years ago. The mastoid was found to be a large cavity, containing a kernel-like mass about the size of an almond. A permanent opening was established, and, owing to the frequent appearance of new cholesteatoma, it has never been closed. The cavity is completely lined by epidermis, which seems firm and normal; but at intervals the lining seems to stretch and gradually part, without suppuration, and new cells are disclosed. The original cavity has suffered quite an increase in size, without any signs of active caries or necrosis.

Disinfection of Instruments by Means of Spirits of Soap.—Gerson recounts his experiences with soap spirits as a disinfectant for instruments. He found that instruments wrapped in cotton saturated with the above-named solution, after a few moments' exposure, were perfectly aseptic. If infected with pus, subsequent wiping with soap spirits rendered them sterile, so that no growth could be found if the instruments were placed on nutrient gelatine. Instruments wrapped in the same way, and laid away in an instrument cabinet, were found to be sterile after long periods, the film of soap having formed a protective coating.—Deutscher. Med. Woch.

Treatment of Detached Retina.—Deutschmann, at a recent meeting of the Aertz. Verein, in Hamburg, described three cases of detachment of the retina cured by his method. His plan consists in the injection into the vitreous chamber of vitreous humor of the dog. In ten years Deutschmann has operated 162 cases, after the failure of the usual methods, and reports 38 cases cured. Among them was one who was operated in 1892. The patient was absolutely blind, but for the past eight years has followed his occupation as officer of a vessel, without any disturbance of vision.—Muench. Med. Wochen.

Glaucoma.—Steindorf has discovered, from an exhaustive study of the statistics of Hirschberg's clinic, that glaucoma of the simple acute variety appears with greatest frequency in the colder months. This conclusion is drawn, that the cold is only indirectly responsible, the more evident factors being disturbances of the digestive and respiratory organs, with accompanying straining and congestion. Another factor is assumed to be the continuous dilation of the pupil due to the dim light of those months. It is suggested that patients inclined to glaucoma be given special care at such times and guarded against these slight ailments.—Wochen fuer Therapie und Hygiene des Auges.

Treatment of Tuberculosis of the Iris.—Koster, of Leiden, has had remarkable success in the treatment of this most dreaded disease by injections of air into the anterior chamber. This method found its inception in the well-recognized effects of laparotomy in tuberculosis of the peritoneum. The technique is comparatively simple. A small opening is made into the chamber with a paracentesis needle, the point of a syringe half filled with sterile air, which has been drawn through sterile cotton, is inserted, the syringe drawn half full of aqueous, the handle of the instrument depressed, in order that the air may rise to the top, and the piston is then pushed half way, so that the air, but not the fluid, enters the chamber.—Wochen. fuer T. u H.

Substitutes for Enucleation.—Galezowski expresses himself as opposed to all the substitutes for enucleation, on the grounds of the danger of sympathetic ophthalmia. He likewise considers all attempts at preservation of the atrophic stump of the eyeball and its improvement by tattooing as dangerous.—Recueil d'Ophthalmologie.

Aalbertsberg calls attention to the danger of optic neuritis and atrophy from the use of thyroid extract. After treating a patient five weeks for myxœdema, there was a marked failure of vision, and examination of the fundus showed an inflammation of the optic nerve, which went on to atrophy. Coppez, in Brussels, had his attention first called to this effect of thyroid preparations by a case of blindness in a hunting dog which its master had attempted to reduce in flesh by the use of thyroid extract. Since then he has seen five cases of this disease, and describes the symptoms as similar to the toxic effects of tobacco or alcohol. There were no general effects of the thyroid poisoning, except a slight nervousness. He considers the prognosis as relatively good, if the use of the thyroid be at once stopped. In view of the rather general use of such preparations, it would be well to keep in mind the possibility of this accident.—Wienerr Klin. Wochen., 1903.

SURGERY AND ANATOMY.

By Wallace I. Terry, M. D., and F. Dudley Tait, M. D., San Francisco, Cal.

The Taste Fibers and Their Independence of the N. Trigeminus.—After making a careful series of observations in regard to taste perception in thirteen cases subjected to extirpation of the Gasserian ganglion, Harvey Cushing has been able to throw considerable light on the question of the route of the taste fibers. As his conclusions well summarize his findings, they are given here in full: "(1) That the perception of taste is unaffected on the posterior portion of the tongue, and never permanently or completely lost on its anterior two-thirds, after the removal of the Gasserian ganglion; (2) that a temporary abolition or lessening of the acuity of taste may be found to exist over the anterior and anesthetic portion of the tongue for some days after the operation; (3) that this temporary loss of function may possibly be occasioned by some interference with chorda transmission brought about by a mechanical or toxic disturbance due to degeneration of the N. lingualis; (4) that a lesion of the trigeminal nerve may be associated with disturbance of taste over the chorda territory without the necessary inference that the nerve is a path for gustatory impulses; (5) that the N. trigeminus in all probability does not convey taste fibers to the brain either from the anterior or posterior portion of the tongue.—Johns Hopkins Hospital Bulletin, March-April, 1903.

Neurofibromatosis of the Nerves of the Tongue and of Certain Other Nerves of the Head and Neck.—This interesting and rare congenital condition was studied, in a child of four, by Abbott and Shattock, of London. The condition complained of was enlargement of the tongue, which protruded habitually from the mouth. The tumor involved only the left side of the tongue, and other masses occupied the left side of the neck, but not extending beyond the median line. With it was associated a left unilateral vaso-motor disturbance, as shown by flushes, but unilateral sweating was absent. A portion of the tumor was removed from the tongue and the true diagnosis made. Later a large mass of enlarged nerves was excised from beneath the chin, and paralysis of the lower portion of the facial nerve resulted. Two years later there was some recurrence of the growth in the tongue.—Annals of Surgery, March, 1903.

Iodized Catgut.—The commercial raw catgut, without any preliminary preparation, is wound on a glass roll, two strings tied together to each roll. The disinfection is effected by immersion in a 1 per cent solution of iodin. The solution is made by dissolving one part of iodin and one part of potassic iodid in 100 parts of water. The solution is prepared by dissolving the potassic iodid in a small quantity of water, to which the iodin finely powdered is added, and the concentrated solution is then diluted to 1 per cent. The solution and catgut are kept in a bottle with a wide mouth, which is closed with an accurately-fitting glass stopper. The date is written on the bottle. After eight days the catgut is ready for use, and is preserved in the same bottle and same solution. Before using the catgut, it is placed on the glass roll in a 3 per cent solution of carbolic acid or an indifferent sterile fluid, for the purpose of removing the iodin from the surface of the threads. Catgut thus prepared is pitch black, soft, pliable, and almost as strong as silk. The knots are firm, and not liable to slip.—Journal American Medical Association, March 28, 1903.

MATERIA MEDICA: THERAPEUTICS.

By Z. Taylor Malaby, M. D , San Francisco.

Sciatica.—G. L. Bailey recommends in the treatment of the acute attacks of sciatica that the patient be placed in a reclining position in a hot-air apparatus, with all the body enclosed, except the head. The affected limb should be comfortably bolstered up, and temperature gradually raised to 240 Fahr. or 260 Fahr., according to the toleration of the patient. During this process he should be induced to drink freely of cool water, and ice-cloths should be applied to the head. The patient should be allowed to remain in this position for one hour, followed by an alcohol rub, and then he should be put to bed, with the limb well supported. This treatment should be followed out daily for five or six days, when the pain will have been relieved sufficiently to allow gentle massage, giving firm pressure over the nerve and at its point of exit from the pelvis. As the pain subsides the massage may be given deeper and harder. The patient will usually find complete relief within two or three weeks. In the chronic cases, the treatment is practically the same, except that more vigorous massage may be given. Nerve-stretching may be accomplished by deeply grasping the muscles of the thigh while the patient is lying on his face and the nerve forcibly pushed and pulled by the operator. With the patient lying on his back, the thigh flexed on the abdomen with the leg extended serves a similar purpose for stretching. Massage and electricity, both galvanic and faradic, are valuable in restoring the atrophied muscles and the circulation. The patient should be instructed to carry out such exercises at home as will tend to produce a stretching of the sciatic nerve and give exercise to the muscles.

Occidental Medical Times

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"SCIENTIFIC EDITORIALS."

The *California State Journal of Medicine* for June, 1903 presents a leading article entitled, "Scientific Editorials," in which a cordial invitation is extended to any one who may be inclined to criticize the sentiments expressed therein. Acting upon this suggestion, and having very deeply at heart the highest interest of the society and its journal, the TIMES considers that some expression of opinion is neither out of place nor impertinent.

At the last meeting of the state society a special committee was appointed by the president, one of whose duties was to consider the publication and management of the *Journal* and to make such recommendations to the publication committee as it might deem proper. A portion of the report made by this committee unanimously recommended that all editorial matter "shall be limited strictly to the discussion of scientific subjects, and that no editorial dealing with controversial matters, or that can in any way be construed as personal or partisan, shall appear in the transactions." The position assumed by this special committee is undoubtedly the correct and dignified one. In this opinion we are upheld by the editorial matter of the various state journals. A state journal is intended to voice the sentiments of the profession of the state, and it has a distinct and positive mission and scheme in the society's existence,—education and enlightenment. Its editorials should therefore be abreast of the knowledge of the day and scientific. It is unquestionably true, however, that an editorial dealing with strictly scientific subjects will not be read and sought after with the same zest as one of a political or controversial nature; but the student and professional man will appreciate the effort, and the *State Journal* can better afford to have a few readers, good and earnest men, than to have its pages defaced with glittering generalities and references to absurd philosophies of the day.

Moreover, in drawing up this report, the committee no doubt had in mind the past and recent history of the society in matters of a personal or partisan nature. Controversies between members could rarely be handled without objectionable reference, no matter how conservatively or skilfully the subject could be presented. The very nature and essence of a controversial, personal, partisan, or political question implies a difference of opinion, and doctors' differences are proverbially very productive of ill feeling and serious dissensions. It was a part of wisdom, therefore, to limit the powers of the publication committee in this respect, and the advice of the special committee should be closely adhered to.

The editorial in question not only dissents from this view, but declares that the publication committee is severely restricted in its efforts in the successful management of the *Jour-*

nal. The views expressed are in open rebellion to the resolutions offered by the special committee and passed by the society. In defense of its position, the committee asks, "Who has the time, in this busy life, to work out papers on the historical and statistical sides of scientific subjects, the sides usually considered in editorial columns, unless there be a special task set and remuneration offered?" This paragraph undoubtedly contains the gist of the whole subject. It is both unfortunate and unkind. It asks the question, "Who has the time to work out papers on the historical and statistical side of scientific subjects?" On behalf of the profession of this state, it can be answered truthfully that there are many ready and willing when it becomes necessary. The view taken by the publication committee of the value of editorials is not a correct one; historical and statistical sides of subjects are not matters for frequent consideration in editorial columns; they are the subjects for essays and formal papers, and justly the committee asks, "Who would read them, and what good can they do the society?" The truth of the matter is that the successful editorial of the day deals with the present, the living, the actual status of questions that are before us. It is the essence, concentrated and condensed, that is and should be the subject of thought of the workers of the profession of our state, and this is the character of editorial that the special committee considered and that the society demands. Had the *Journal* no other use for its pages than antique data and political or partisan questions, the reason for its existence would be very vague. There is sufficient material in the society to present the most scientific subject in a most readable and complete manner. The reason for the committee's complaint is not understood, unless explained by the following words, "remuneration offered." It is with full appreciation of their best intent that we pass over these words. They should find no lodgment in the minds and hearts of those who have the best interests of the "Journal" or the honor of the profession within their consideration. As to the value of such a series of papers, there can be no question. If they could not be of any advantage to the society or any member thereof, there is a glorious field outside of its membership that could be stimulated and enlightened to better work and higher aims.

The committee's definition of scientific is somewhat liberal. The subjects germane to the government and improvement of the society should have full presentation before the society. This is necessary, and under no circumstances should the committee fail in such duty; but this in no way will interfere with or be derogatory to the best interests of the body or the scientific value of any other editorial matter.

The committee requests that it should be believed that it has no mission or scheme on hand. As far as the TIMES' opinion is concerned, it fully believes that it has neither, but the emphasis placed upon it by the committee might lead one to believe that its definition of "mission or scheme" is as liberal as its definition of the term scientific. That the committee has had the best interests of the *Journal* at heart is fully evidenced by the general excellence of each number; but it is not required that, in order to be "quite alive," it shall deal exclusively with the mere workings of the society, to the exclusion of subjects of a higher and greater value. It certainly would appeal to the thoughtful man as being very dead if it presented year in and year out subjects that pertain alone to the working of the society, and appeal mostly to the committee itself. Some of the editorial matter hitherto has savored most unpleasantly of "social science" or "society science," and just how such material could lead to the upbuilding of the society is an enigma. Whether the members will object to this interpretation of the instructions of the special committee is a question the TIMES does not care to answer but it believes that the publication committee should have been more discrete, and that a closer following of the instructions given will bestow dignity and honor upon the society. There exists to-day too great levity and freedom in the editorial matter of certain journals, and surely such a spirit should find no place in the columns of the *State Journal.*

PLAGUE CASE NO. 96.

Wong Tzse Hop, male, died of bubonic plague June 5, 1903, at 27 Brenham Place.

CORRESPONDENCE.

This morning I had the pleasure of seeing J. B. Murphy, to whom we owe the Murphy button, operate at Mercy Hospital. His series of cases included appendectomy, nephrorrhaphy, removal of pelvic abscess, hernia, combined hernia and appendectomy, and a plastic operation. Dr. Murphy is a man of fine physique, and operated deftly. There was no fumbling; each application of an instrument accomplished a desired end; all the while there was a lucid explanation of his steps, his words having a rich milesian accent. He used horsehair preferably for skin sutures. He explained that the greater elasticity of the material prevented its cutting tissues. In ligating he first applied a rather heavy clamp, making a groove which received the catgut and prevented it from slipping off after severing the tissues. In hernia he employed the modification of Bassini's operation devised by his colleague, Dr. Andrews. The incision is made somewhat higher than Bassini's. The conjoined tendon and muscle are brought down and sutured to the inner surface of Poupart's ligament, so that this ligament somewhat overlaps, forming a groove for the cord. In closing the peritoneum after laparotomy, he brought together the inner surfaces of the edges of the peritoneum, leaving the raw surfaces entirely external to the peritoneal cavity, claiming thereby to prevent adhesions within the cavity at this point. In fixing the dislocated kidney, he stripped back the capsule to the hilum, passed his suture twice through the scrolled capsule, once through the convex border of the kidney, and again twice through the scrolled capsule of the other side. He used three sutures altogether, introducing them at points which indicate the three lower fifths of the kidney. After all laparotomies where there is any reason to fear sepsis the patient is kept in semi-sitting posture, at an angle of from 30 to 45 degrees, for four days, thereby directing drainage to the pelvis, where it is less liable to cause trouble. In laparotomies he used the rubber dam. Dr. Tillmans, of Leipsic, was also an interested spectator.

Minora E. Kibbe, M. D.

Chicago, May 23, 1903.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

The president, Dr. H. H. Look, in the chair.

FRACTURE OF PATELLA.

Dr. G. A. White presented two cases of fracture of the knee-joint that had been treated by him recently, with good results. One of them was an aggravated case. This patient had his patella broken into eleven fragments at Adams Springs on July 3, 1902. He was taken to the Sisters' Hospital in this city. I made a transverse incision, flushed out the cavity, and trimmed off the fringe between the fragments, making close apposition by means of catgut. The other case, which was not serious, was treated in a similar manner, with good results. Dr. White also presented another case of fracture of the patella which had been treated by Dr. John White. This patient was treated in the manner outlined by Dr. G. A. White, and with good results. Report of the two former cases were reported at previous meetings of the society.

Dr. T. W. Huntington, San Francisco, read a paper on

TREATMENT OF FRACTURE OF PATELLA.

Dr. G. A. White: The method of treatment the author has given us is a recent one. The old plan of fixation of the joint in cases of compound fracture is attended with failures, fibrous union being the rule. I have seen bony union with the old method, but my experience has been that they have been usually cases of fibrous union. The present plan, that the author has described, is simple in its technique, and it is surprising that it has not been adopted until now. The author's method of making a small incision does not appeal to me as being altogether the best procedure. In extensive fractures of the patella and in other instances where there is non-union, matras sutures give support. My practice has been to make a free incision where there has been clots or effusion of blood, flush freely, and have nothing to regret for doing so. I am in the habit of trimming off the fringe between the fragments and make a clean, close apposition. I do not understand the doctor's idea when he says he used his matras sutures for the purpose of supporting the fringe. My idea is that the fringe is in the way, and should be snipped off. I am in the habit of putting in sutures thickly, the more the better. In addition, I put on a collodion cap, which is an important detail as regards perfect repair. A gauze compress is extended over the joint, about three inches below and an equal distance below the knee, so as to make a six-inch cap. This is covered with a light cotton layer, and covered with a collodion finish. Then a cast extending from the foot to the thigh completes the dressing. I have not introduced passive motion as early as the author has. I should not feel quite safe at that time. I think it safer if commenced, say, near the fourth week. I have a case now under treatment, that of a man who fractured his patella transversely, from muscular action, while turning a somersault. He was brought to the county hospital and treated in the manner outlined by the author, and will have a first-class result.

Dr. W. W. Ward, Woodland: The method described by Dr. Huntington is certainly the most approved. I have seen only one case operated on by the following method, but it was a success in every respect. I know this, because I followed up the case. The operator remarked that it was the first time he had tried it. He drilled through the bone by the method ordinarily employed for the use of silver wire, but he used catgut instead. He got a perfect result.

Dr. W. A. Briggs: I desire to express my gratification at the success of this meeting and my pleasure at listening to Dr. Huntington's paper, particularly because it is the first of what I hope will be a series of such papers, and which was unusually scientific in character, demonstrating the anatomical conditions involved, and also illustrating by skiagrams the results obtained. It seems to me that it is a model paper, which might be followed by myself, for example, and other members of this society. As to the subject-matter, I have very little, indeed, to say, because it lies largely out of my jurisdiction. There were some points, however, which appealed to me, one of which was the demonstration that bony union takes place in at least some of these cases. It seems to me that this very fact will stimulate those who pursue this part of surgery to greater exertions in an attempt to secure better results than heretofore. The second point that appealed to me was the author's remarks in regard to the culture media produced by these injuries—the effusions that take place, which are the best culture media in cases where infection takes place, usually with a serious result. While the treatment presented to us by the author and by the first critic who discussed the paper, is undoubtedly an ideal one, yet we must not forget that under certain conditions other forms of treatment are better. What would be an ideal method of handling such cases surgically, with the proper environment, would be little less than homicide under unfavorable conditions. In these cases we must consider not only what is best under the most favorable circumstances, but also what is best under actual circumstances.

Dr. G. L. Simmons: Lately I have had an opportunity of seeing Dr. Huntington operate, in a bad case of fractured patella, and I agree with him in regard to the methods used and their safety. In relation to this subject, I will say that over thirty years ago I wired several cases of this kind with silver wire, and, although the methods used would now be considered crude and not antiseptic, the results were perfectly satisfactory. In the historical table quoted to-night by the author of the paper, these cases are mentioned. I believe the reason why success attended my early efforts was connected with the free use of alcohol dressings, which prevented infection. I would say, further, that the use of silver wire in this operation was suggested by Dr. Brainard, a prominent surgeon at that time in Chicago.

Dr. W. E. Bates, Davisville: The patients I have to deal with are mostly farmers, and not educated up to the idea of asepsis and antisepsis, and it is hard to prevail on them to go to a hospital. The patient whom you saw to-night would not think of an operation; he would die first, so I put on an Agnews splint, and treated him by the tentative plan, and you have been able to see the results. I feel as if the result is all that could be desired, but these cases are like those of appendicitis. If they are cured without operation, there is a great sense of satisfaction to the attendant, but there is always the feeling present that an operation is the safest for a perfect result.

Dr. F. Foster: My experience with such cases of late has been limited. Formerly I had more experience, but it was before the time this present operation was brought forward, and, as Dr. Bates said, it was in the country, where we had few hospitals, and we had to resort to the tentative treatment. The results, of course, were the same as with all our cases, not always all that could be wished, but I was pretty well pleased with the result.

I was practicing at that time in a high altitude in the Rocky Mountains, railroad practice, and we looked for better results than in a lower altitude. We seldom had any serious results, as far as sepsis was concerned.

Dr. Thos. Ross: I have seen quite a number of cases of transverse fracture of the patella. I do not remember of having seen a single case unite by osseous union. They were all treated without operative interference, and I have seen some very good results. I have seen some cases where the fragments appeared to be in close contact, in consequence of the limb being used too soon. They were separated more than two and a half inches. It is astonishing in these cases how well the limb can be used on level ground with the aid of an elastic knee-cap.

Dr. T. W. Huntington: I think I said the operation should be done under all the surroundings that aseptic work requires. With regard to the point raised by the first speaker as to the size of the incision: In these cases which I reported to-night, in the last one I made the smallest incision of any. The conditions there were not different to those in any other case. The number of sutures used in that case were three mattress sutures. The objection to a small incision is, you do not accomplish anything by it, and you add to the increased amount of cicatricial tissue, and get more or less interference with function. I do not irrigate in such cases. With regard to trimming the fringe: I do not know that Dr. White's position is well taken. I do not know why it should not be left to form a barrier. With regard to early passive motion: Two weeks is not too early. I begin with the least possible motion, without any complaint at all, and each succeeding day I increase the motion, until at the end of eight weeks I get the limb at an angle of 90 degrees.

CALIFORNIA ACADEMY OF MEDICINE.

May, 1903.

The president, D. W. Montgomery, in the chair.

Dr. W. I. Terry reported a case of

LUETIC INFECTION, FOLLOWED BY EPITHELIOMA

M. K., age 42, native of California. Family history: Father died at sixty-five of pneumonia; mother at sixty-five, of jaundice. Mother had paralysis of left side two years before she died. Two brothers dead, one of pneumonia and one of abscess of right side. One sister died at fifty-two, of paralysis of left side. Four brothers living and in good health. Habits: Tobacco to excess. A probable luetic infection twenty-two years ago. Past history: Measles, whooping-cough, and malaria for past twenty years. So-called rheumatic pains in shoulders and hips for last six or seven years. An attack of herpes zoster about two years ago. Present history: About five years ago, after exposure to cold, patient's voice became hoarse. This improved somewhat, but the voice did not become clear. Two years ago he noticed that his voice was getting much weaker. No dysphagia. Was under the treatment of several physicians, but without improvement, the aphonia increasing. Six months ago pain in throat on swallowing. About six weeks ago he consulted Dr. George H. Powers, who found tumor masses in the larynx, both above and below the vocal cords, and especially on the right side. Various local applications to the larynx were made, and the patient was put on increasing doses of K I up to thirty grains t. i. d. An examination of the sputum for tubercle bacilli was negative. On the day before admission to the C. and C. Hospital, the patient became very dyspneic from edema of the glottis. An examination of the patient on admission to the hospital revealed nothing abnormal except in the throat. I operated on the seventh of this month, first doing a low tracheotomy under Schleich cocain anesthesia, and inserted a large tracheotomy tube. Then, by means of a median incision, the larynx was split and held apart by retractors. The tumor mass was easily removed by the curette, knife, and scissors. Frequent applications of two per cent cocain were made to the interior of the larynx, and the patient suffered but little pain. Hemorrhage was insignificant, and was easily controlled by packing. A few sutures brought the upper portion of the skin wound together. No sutures were applied to the larynx. The tracheotomy tube was left in for two days, for fear of a possible edema of the glottis, but I feel that it could have been dispensed with immediately after the operation.

Dr. W. I. Terry presented a case of

EPITHELIOMA OF LARYNX,

Dr. Sherman: How long was this condition in the larynx epitheliomatous? He says the hoarseness began five years ago. The diagnosis was not made until after the tumor was removed. How long was it malignant?

Dr. Terry: Two years ago the condition grew rapidly worse; began with the vocal cords, and afterwards became papillomatous in type.

Dr. Howard Morrow reported

A CASE OF IODIC DERMATITIS.

This man has an extensive eruption of three months' duration. It is the vegetating form of iodic dermatitis. When I first saw him, a month ago, the lesions were more active, and the patient felt very sick. His throat was very sore, owing to an extensive ulceration of the soft palate and posterior wall of pharynx. The lesions on the limbs were circinate masses of infiltration; some contained scar tissue, while others were ulcerated. A month ago the lesions on the face resembled a diffuse papilloma. Since then the papillary hypertrophy has flattened down considerably. I believe the ulceration in the throat followed the development of an iodic bulla. The case is of interest on account of the great amount of eruption, the destruction of tissue from the ulcerations, and from the standpoint of diagnosis.

Dr. G. Gross: I would like to know if mercurial treatment had been tried, and in what form.

Dr. Dudley Tait: I wish to express some doubt as to the correctness of the diagnosis in this case. That it may be syphilitic is suggested by the circinate appearance of the lesions on the back, the marked and extensive distribution of the lymphatic involvement, the absence of repair in the throat lesion, the extensive necrotic process at this point, accompanied by some infiltration, and also the fact that no iodid had been taken for the past five weeks. My impression is that we are dealing with a case of late secondary syphilis, somewhat modified by the abuse of iodides.

Dr. Sherman: The throat lesion struck me most. That it could attack the uvula in that way was entirely new to me, and I can not quite understand it. The throat mucous membrane is not part of the tegumentary system.

Dr. D. W. Montgomery: This is an extremely interesting case, on the one hand because it shows what extensive and deforming lesions may be produced by a drug, and on the other because of the liability of mistaking those lesions for a syphilide. Some of the sharpest clinicians have been deceived into taking iodic ruptions for syphilides, and in some instances the diagnosis can not be made from the appearance alone. In this man's case the pitted or cribriform scarring on the face is certainly iodic. A striking feature of the eruption of the face is the way the eyelids have been spared. This is particularly well seen in the lower eyelids, where the face is affected up to the edge of the orbits, forming semicircles under the eyes, and giving the face amask-like appearance.

As far as the lesions on the general cutaneous surface are concerned, they certainly resemble syphilides; but, supposing them to be syphilides, one would have to consider them tertiary syphilides, even if they occurred early in the disease. If they are tertiary syphilides, it would certainly be remarkable for none of them to show the well-known kidney shape. For my part, I am inclined to believe them iodic. The extensive enlargement of the subcutaneous lymphatic nodules may be due to the long-continued suppuration of the lesions on the skin. It must be admitted that failure of the axillary lymphatic nodules to enlarge is somewhat remarkable.

The loss of substance in the soft palate certainly looks as if from syphilis, and I have never seen any such loss of substance in the mucous membranes in iodism. I should think it might occur in iodism of the mucous membranes, however, as great losses of substance certainly occur in the skin in iodism, and the mucous membranes are only extensions of the skin. Neumann has described an immense ulcerative iodic lesion of the stomach. A very important feature in the case is the fact that all of the lesions began to immediately improve on withdrawing the drug, and that all of them have continued to improve under a placebo that certainly could have had no effect on the lesions were they syphilitic.

Dr. Morrow: I saw this man for the first time one month ago. At that time he had been taking mercury and iodid, sometimes together, sometimes separately. I do not know what form of mercury was given. I know from physicians that he was getting iodid nearly all the time. Whether or not he ever had syphilis I do not know. He was in the Philippines, and while there, ten months ago, developed a bubo. He says he never had a chancre. Surgeons opened the bubo, and the man was put on mercury. A short time after he developed some boils, according to his own history, and was put on K. I., on account of a diagnosis of syphilis from the appearance of the boils. Now, if he had chancre, he certainly had it a long time before, because "boils" do not appear for a good many months after the primary infection. If the man had a chancre over a year ago, with development of these lesions, which, if they are syphilitic, they are tertiary, consequently he would not have involvement of the lymphatic glands. If the case is syphilis, the enlargement is due to pus absorption. In regard to Dr. Sherman's question about the throat, that came on only five days before I saw him. It came on suddenly. At that time he was taking large doses of iodid. It was first flat, like a blister. There is no reason why ulceration could not follow a bulla, if that was a bulla. If there is infiltration around the ulceration at the present time, that does not throw any light upon it, as there are areas of infiltration all over the skin, and it would be only natural to find similar infiltrated areas in the mouth. One month ago that man could not talk, on account of the pain from extensive ulceration in his throat. Since then he has received nothing but citrate of potash, 20 grains t. i. d., and zinc ointment locally. The skin is much better, and all the body lesions are less active. The ulcerations on the skin have all cleared up very rapidly. One month ago he felt very sick, but now says he never felt better. Although some of the lesions on the body resemble syphilis very much, and it is very hard to differentiate the two, I believe that iodid is responsible for the entire eruption, including the ulceration of the palate.

Dr. George Gross reported a case of

ULCERATED GUMMA OF THE HYPODERME AT THE BASE OF RIGHT DORSAL REGION.

The case is interesting because this lesion appeared as a late tertiary symptom in a subject thirty-eight years old, who states that twenty years ago he had a single chancre on the glans of the penis, which healed in a very short time under simple local treatment, without ever being followed by any constitutional symptoms of any kind. However, twelve years ago, while in Philadelphia, the patient visited for several months a hospital clinic for a sore throat; the attending physicians only used local treatment, but according to patient's statement considered the complaint as being of specific character. That sore throat finally yielded to some simple soothing local treatment under Dr. Sajous, who, according to the patient's statement, did not consider the case as being of specific character. Aside from this throat complaint, patient never had any manifestation of syphilis, yet he declares he never felt in perfect good health, neither as strong as his powerful constitution makes him appear to be. Exactly one year ago a nodus developed in the skin on the upper part of the right arm; this nodus gradually became ulcerated, following the same course as the present one, taking about six weeks to heal up under simple local treatment, without any pain or inflammation; a copper-colored scar about one inch long has left its stigma at the seat of the sore. The present sore started a little over two weeks ago as a nodus, which gradually enlarged, then ulcerated, without ever being inflamed or discharging any pus. The aphlegmatic nature of the lesion, the peculiar circinate form of the skin ulceration, the appearance at the bottom of the ulcus of a core-like mass resembling the flesh of codfish or a small mass of old-style raveled lint, characterize this lesion as a syphilitic gumma. Such a manifestation is of special importance to its bearer, since it is nature's warning that he is in imminent danger of tertiary syphilitic accidents, unless he submits at once to a systemic treatment, with large doses of iodid for the present and a thorough mercurial cure as a guaranty against future accidents.

CUTANEOUS HORN.

Dr. Terry said, in regard to the specimen: This growth is a cutaneous horn, removed from the lower lip. It began in the vermilion border of the lip, and grew to considerable extent. The man used to shave it off. He consented finally to have it removed. It is merely a curiosity. The man is 23 years of age, and has had it about three years. He has been a heavy smoker, and carried his cigarettes in the left angle of the mouth, where the growth appeared.

Dr. D. W. Montgomery: In regard to the diagnosis: I once saw a patient, with Dr. George Chismore, where I made the mistake of taking chancre to be a cutaneous horn. Chancres of the face have, sometimes, a crust that is hard, hornlike, conical, and projecting. In Dr. Chismore's case I noticed, but did not appreciate, the fact that there was a red, rolled border around the horn. About one year ago a man, whom I had previously treated for seborrhea, came into the office, having what I took to be a pyogenic lesion on the chin. At his next visit, about a week afterward, the lesion had a hornlike, conical covering, and the submental lymphatic nodule was much enlarged. I told him what I suspected, kept him under observation, and in due time secondary syphilitic symptoms developed.

Dr. H. Morrow: I have one similar specimen, which came from the skin of the wrist. The patient was an old man, and it had been growing for twenty odd years. It looks like the spur of a rooster about four years old. I saw him ten months after, and there was no recurrence.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

February, 1903.

SKIN-FLAP.

Dr. Kaspar Pischel demonstrated the use of a skin-flap, as introduced by him on a case of radical mastoid operation for the immediate closing of the wound. "Miss E. C., aged sixteen years, came to my office Nov. 5, 1902, with a running left ear, which had been discharging since she was a small child. Sometime ago the outside of the ear had become sore. Diagnosis: Otitis externa, otitis media suppurative, chronic with granulations, mastoiditis chronica probable. There was some eczema under the lobe and at the entrance of the left ear. After cleaning out the external meatus from pus, I found and removed a large, tough polypus from lower half of middle ear and several granulations on entrance to attic. Syringing of attic did not bring out any more pus. I told the patient at the time that a mastoid operation would probably be necessary.

"After treating the ear for three weeks, I was convinced that the mastoid was affected.

"Nov. 27, 1902, I performed a radical operation. Bone exceedingly hard, small, deep antrum filled with thick sac containing debris. Facial nerve twitched several times when scraping out middle ear. I covered the spur with a skin-flap taken from the posterior border of the wound, as described in 'Archives of Otology,' vol. 30, No. 2, 1901. The lower part of the bone trough was covered with Stacke's flap (formed out of the external meatus). Between these two flaps I put in small rolls of crede gauze. Posterior wound closed.

"Seven days later, having had no fever, the pieces of crede gauze were removed. Flaps on spur looked well. Sixteen days after operation: Wound behind ear closed; flap on spur had lost epithelium. Fifty days after operation: All healed, except middle ear, where some granulations still appeared. Sixty-two days after operation: Completely healed and dry; hearing, Wa 5 cm., Wh 75 cm., U 75 m. Eighty-two days after operation: Hearing Wa 20 cm., Wh greater than 5 m."

Dr. Barkan: I think we are all agreed that the operation, in its fundamental lines, can not be very well changed, as we all do it.

The matter of treatment, of closing a wound immediately or leaving it open, is a much disputed one. I think that, from some of the experience I have had in the matter, my idea has been to close the wound, if possible, immediately after the operation, but that I have done very few times. If that does not seem advisable, I close it soon after the operation—a week or two. I have had some experience with the method Dr. Pischel has mentioned. I think all of you are familiar with the operation.

Ballance divides the operation thus: The first is a radical operation, which concludes by forming a flap from the concha. This he folds back so that flesh touches flesh, and a week or two afterward he reopens it, and goes over the whole field again; transplants large Thiersch grafts, and closes definitely.

The cases I have seen him do were quite successful. The time for that treatment was much shorter than the method just given here.

In a general way, I am safe in saying that the operation shortens the time of treatment by immediately closing the posterior opening. When one wishes to do this, I think the method as good as any.

That of Pischel's is a very fine thing. One sitting does away with some disadvantages, but two seem to be better. Professor Schwartze warns us in a case of cholesteatoma not to close the posterior opening too soon. When Macewer is through with his operations, he closes the wound, and does not touch the patient's head for a fortnight. His results are as good as any others. Of late years they have taken to closing the wound so soon that the results have not always been favorable. I generally prefer to use, if I can, Ballance's operation.

Dr. W. B. Stephens: I am glad of the opportunity to examine Dr. Pischel's patient, operated on by his flap method. I congratulate him upon his success.

To supplement his case, I have brought this patient to-night. The patient is thirty years of age, and has had a right otorrhea since childhood—a sequelae of scarlatina. The patient first came to me about a year ago, when, in the right ear, besides the ordinary appearances in a purulent otitis media, was found a small perforation in the superior wall of the bony meatus, admitting a probe to the attic. Operation was advised at this time, refused, and patient returned home. Two months ago patient returned. The perforation in bony wall had increased to one centimeter in diameter. Operation was now accepted. A tympano-mastoid exenteration was done through the ordinary curvilinear incision. The posterior wall of the canal and anterior wall of mastoid process, that is, the premastoid lamina, were freely removed, to allow the soft parts to fall well into place. A noteworthy thing in the bony configuration was the distance between the roof of the attic and the facial spur, being almost two centimeters. A flap was made of the posterior and inferior wall of the meatus and concha, which flap was well sewed down into the floor of the cavity, the wound sewed up, and cavity packed through the meatus. Twelve days later the wound was reopened, and Thiersch skin-grafts taken from the arm, and a surface about two and a half by three inches in area in the mastoid and tympanum covered. Two grafts were taken for this purpose. The grafts were in turn covered with gold foil, posterior incision again closed, and cavity repacked through meatus. Thus, with the exception of the posterior incision, a Ballance operation was done. About three-fourths of the graft grew. Had the secondary operation been postponed until granulation was more pronounced, all of the graft would probably have lived. As it is, at the end of two months, the cavity is covered with good epithelium and the patient is practically well. Dr. Pischel's skin-flap would not have been applicable in this case, on account of the size of the flap required to cover so large an area.

Dr. F. B. Eaton: There is a point Ballance makes in regard to his operation which has not been mentioned by Dr. Barkan or Dr. Pischel. The parts of the bone cavity especially requiring grafting are the roof of the upper part of the anterior wall of the enlarged osseous meatus, the anterior wall of the tympanum, the roof and the internal wall of the typanum, and the roof and the inner walls of the antrum. He does not graft the posterior wall of the mastoid cavity if this be very large, as this would keep it unnecessarily big. It has also been noticed that where the facial nerve has been exposed in its canal by disease of its bony wall, the gauze packing or something else causes facial twitching, which quickly disappears as soon as the grafts are applied. We are all interested in the operation, and if we could always look forward to such success as Dr. Pischel has had, we could not wish for more.

Dr. Deane: In regard to your use of skin-grafts instead of skin-flaps: Why could not one flap be used, which would cover the lower part of the wound as well as the upper part, or, if that were insufficient, use two flaps according to Jackson's method, of Pittsburg, where the original incision is made farther back than is usual, and the two flaps taken from the anterior borders, from which position they are more readily tucked and extended farther into the cavity?

Dr. Pischel (answer to Dr. Deane's question): The available skin on the posterior border of the wound has been used by the flap covering the upper wall. If the mastoid trough is not too large, this flap will join Stacke's flap. But probably one could use a skin-flap from the anterior border of the wound to cover the upper wall and the flap from the posterior border with the base below to cover the posterior wall.

DISSEMINATE TUBERCULOSIS OF THE IRIS.

(LEBER.)

Dr. Martin: The boy, three years of age, was brought to my office Jan. 12, 1903. The mother states he fell from a bicycle nine months since, injuring the left eye, from which he entirely recovered. She dates the present trouble from about three weeks since. At time of first visit, there were four nodules in the body of the iris, between the free margin and the limbus, and two in the form of synechiae, which were in the stage of resolution. The free margin was almost totally adherent to the anterior capsule. I saw the child two weeks later at the polyclinic, when the process was more advanced. Since then I have not seen the child until this evening, when I find a decided change for the worse, the cornea being involved, and several new nodules have appeared in the iris. In looking up the literature of the trouble, I find that of fifty cases (Schieck., vol. L, Graefe Archives, page 247) of children between one and ten years of age treated before the use of tuberculin, eight eyes recovered and forty-two were lost, while all the cases reported as treated with tuberculin, of which none were under ten years of age, were cured. I did not have an opportunity to try any form of treatment, as the case was transferred to other hands. The mother informs me that Dr. Barkan is treating the case at present, from whom we would be pleased to hear as regards the method and result of treatment employed. I did not advise enucleation of the eye, but advised the mother that such a possibility might transpire in order to prevent general infection, as the best authors advise enucleation if there is any tendency for the process to break through the coat of the eye.

Dr. Barkan: When I first saw the child, it was with the physician who had attended it, and who thought it to be a case of scrofulous ophthalmia, and treated it with calomel. This proved of no avail, so he brought the child to me. The mother would not consent to removing the eye. I found it to be an unquestionable case of tuberculosis of the bones.

Examined the child, and found it in a perfectly normal condition otherwise. Treated with iodoform salve and massaged forcibly.

Would like to have the opinion of some others. Dr. Martin states that the nodules have grown since he first saw the child. Not so with me; they are the same.

Dr. Cohen: In a case as serious as this, one is so anxious to do the right thing that he hardly knows what to do. Dr. Martin says tuberculin is just the thing to use, and Dr. Barkan uses massage. This latter, to me, seems of little good. I think that as tuberculin has been of relief in so many cases, it should be tried in this.

Dr. Nagel: I merely want to suggest that it might be a good thing to make an iodoform injection.

Here the discussion of this subject closed.

Dr. Nagel read a paper on

TREATMENT OF PRIMARY GLAUCOMA.

Dr. Martin: In the twelve years of practice in San Francisco, I have had but one case of primary glaucoma. Cases of secondary glaucoma are more frequent. I would like to inquire from others if their experience has been the same. Is it not probable that, on account of the perfected methods of refraction, these cases are growing rarer?

Dr. Brady showed a case of muscely of the left inferior lachrymal canaliculus of fifteen years' standing, independent of the saccus lachrymalis. The cystic cavity was denuded of its lining epithelium with the galvano-cautery, and its walls made adherent by continuous compression.

He also cited an instance of primary epithelioma of the cornea existing for eight years, entirely free from the limbus, from which it was separated by a clear circle of corneal reflex 2.5 mm. wide.

Both observations were photographically illustrated, and microphotographs of the sections of the neoplasm showed its malignant characteristics.

Dr. Pischel showed a plaster cast of a saddle-nose, taken before and after paraffin injections. Patient, fifty-four years old, had his nose broken when quite young. Two injections, three weeks apart, corrected the deformity, to the great satisfaction of the patient. Paraffin, with the melting-point of 104 degrees, was used, which was prepared by mixing ordinary paraffin (which has a much higher melting-point) with glymol. Injections were made with a hypodermic syringe, but the doctor considered Harmon Smith's, with screw movement, preferable. After each injection the nose was quite red for several days.

Paraffin injections have been recommended very extensively for eye and ear work, i. e., for ectropium, entropium, trichiasis, atrophic rhinitis, closing of post-auricular openings.

SATURDAY NIGHT CLUB.

Regular Meeting, May, 1903.

Dr. Mary B. Ritter read a paper entitled

THE RELATION OF THE PHYSICIAN TO PREVENTIVE MEDICINE.

Dr. Kate Van Orden: I would like to say, in connection with this subject, that there is a great deal in instructing the mothers properly. I have been asked many times by my neighbors what I fed my children that kept them so healthy. I have replied that it was not what I fed them, but what I did not feed them. A child's diet should not be limited, but a great deal can be done in instructing mothers as to the fulness of diet, the amount of fruit and green vegetables that may be given. Children should not be allowed to take lunches to school. In Alameda we have had the school lunch-hour lengthened to one and one-half hour, and this action has been largely due to the effort of the mothers. I agree with Dr. Ritter that it is by our efforts with children from 9 to 12 or 14 that any good can be accomplished.

Emma S. Merritt: It seems to me that physicians, as a body, do not do their duty in instructing the people. We can not give lectures individually. As a profession, we ought to do something to instruct the public at large regarding the laws of health, possibly through the board of health. It seems to me that we have no means of instructing them about many things it would be of benefit to them to know.

Dr. Adelaide Brown: I would like to say something in regard to the tilted pelvis. I never allow my patient to sit up in bed. My reason for this point is that a woman, as she sits up in bed, sits upon the sacrum. My patients have to sit upon the tuberosities of the ischia, as they should. I think we find this a good rule. I never allow a woman to walk after her confinement, until examination has been made. It is astonishing what good can be done in a very few days by learning to hold the abdominal muscles in and the use of the knee-chest position. The subject of constipation is interesting. Dr. Ritter did not emphasize it as much as I have been taught to. It is a fault that almost all pelvic cases have, and a bad symptom.

Dr. Lucy M. F. Wanzer: It seems to me that confining the muscles of the trunk of the body, as many mothers do, brings about more trouble than the posture. A normal little girl has a dress with a loose band, and has no abdominal muscles restrained. At 10 or 12 years of age a marked change in dress is made, and then our trouble begins. Corsets are put upon this little child; excess of clothing in the abdominal region, garments tight and improperly supported, restrict deep breathing, infringe upon all the organs of digestion, the circulation is impeded, constipation follows, and later on in the tender years of life the uterus is forced down or across the floor of the pelvis; congestion, hypertrophy, and the usual disorders follow. Dr. Ritter, I think, has clearly demonstrated that correct posture is an important factor in maintaining the health of our girls, yet I believe an important one can be found by taking away the corsets and giving freedom to the muscles of the trunk of the body.

Dr. Emma S. Merritt: Antiflexions are very common. I should like to ask Dr. Ritter how she explains them according to her theory.

Dr. Mary B. Ritter: I was very much in hopes to hear more discussion of my theory about the effect of incorrect posture upon displacement of the uterus. I think that if you watch children, you will notice that little children stand very much better than their older brothers or sisters of 10 or 12. I think there are two reasons for this. One is that the body is very much shorter and more compact, and therefore the muscles work to greater advantage. Of course, the longer a muscle the more it works at a disadvantage. Small children are always active, playing and moving about all the time, constantly alternating the muscles in use; but there comes a time when the chubby child begins to stretch out into the tall boy or girl, and at that time is put into the school-room and into ill-fitting seats. All sizes of children in one grade are put into seats of one shape and size, and one never fitted to a human form. Then the child begins to "slump" and rest on the desk in front, and sit on the sacrum in place of the ischia. Standing during recitations in the close school-room becomes very tiresome, and she stands first on one foot and then on the other. It is in the school-room in these early years that this incorrect posture begins. Physical culture, when properly directed in the schools, will probably assist in preventing this. But I am convinced that faulty posture has a great deal to do with abnormality in the position of the pelvic organs. I can not explain antiversion on my theory. I do not find them very often. I find more retroflexion and retroversion, and I stated explicitly in my paper that this is one cause only of displacement of organs, not the sole cause.